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ABSTRACT

GRADES OR AGES: K-6. SUBJECT MATTER: Mathematics.
ORGANIZATION AND PHYSICAL APPEARANCE: Although the content is divided into seven skill levels, variations may be made in their use and two topics may be taught simultaneously. Each level is organized in two parts, the first having columns showing activities with examples, textual resources; and related resources, the second containing tests and answer keys. The guide is xeroxed and spiral-bound with a plastic binder. OBJECTIVES AND ACTIVITIES: No specific objectives are given for each level. INSTRUCTIONAL MATERIALS: References are provided throughout the guide to relevant Houghton Mifflin materials, with a column for the teacher to note other suitable material. STUDENT ASSESSMENT: Tests are provided for each level to measure the mastery of single skills or a number of related skills. The use of these tests is explained in the strategy manual at the beginning of the guide. (MEM)

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THE BREVARD COUNTY
MATHEMATICS CONTINUUM

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Brevard County Schools
Brevard County, Florida
June 30, 1970

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Illustrated by: Miss Connie Speaker

INTRODUCTION

The organization and development of the Mathematics Continuum is based on current research data concerning the individuality of the learner, the changing role of the teacher, and the necessity for the development of a more sequential approach to the teaching of mathematics in Brevard County Schools.

The Revised Mathematics Continuum is the result of a continuing effort to improve the instructional program. This effort has resulted in a program that provides the motivation for students, the organization for teachers, and the direction for parents in understanding their role of assisting their children in a time of social change and scientific progress.

During the past three years educators throughout the county have contributed their talents toward the development of the appropriate materials to assist classroom teachers in the implementation of the Mathematics Continuum. The large number of contributors prohibit the mentioning of their names, but the personal satisfaction of knowing that they were instrumental in developing a mathematical program that teaches students of all levels of ability the basic concepts, structure, and application of mathematics in daily life, is sufficient reward.

STRATEGY MANUAL

DID YOU KNOW?



I. TOPICS

A. Mainstream topics

1. Numeration
 - a. sets
 - b. number theory
 - c. number sentences
 - d. place value
2. Addition and Subtraction
3. Multiplication and Division
4. Fractions
5. Decimals
6. Integers

B. Floating topics

1. Geometry
 - a. non-metric
 - b. metric (all geometry pertaining to measurement)
2. Time
3. Money
4. Special Topics

II. SKILLS

- A. are listed in order of difficulty within a topic
- B. cover fundamental concepts - they may be enlarged upon or added to as student needs arise

III. ACTIVITIES

- A. use teacher-made aids
- B. use commercial aids
- C. use additional test materials
- D. use educational games

IV. PUPIL PLACEMENT

- A. use teacher observation and judgment
- B. use previous year's pupil record card
- C. consider pupil achievement test scores

V. GROUPING

- A. group on the basis of student needs**
- B. keep groups flexible**
- C. use teacher aids**
- D. use student aids**

VI. MASTERY TESTS

- A. test individual skills**
- B. test related skills**
- C. use teacher-made tests**
- D. destroy tests after use**

VII. RECORD KEEPING

- A. record scores from prepared mastery tests on pupil record card**
- B. maintain card as a vital part of each pupil's cumulative record**

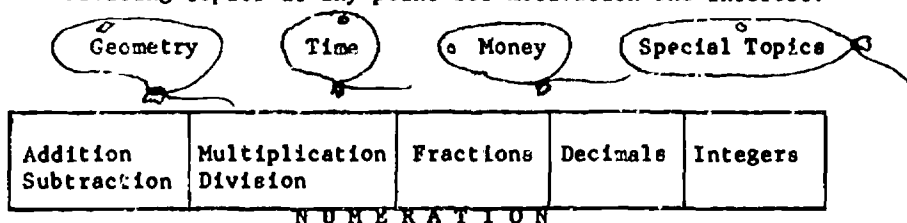
IT'S GOOD
TO KNOW!

STRATEGY MANUAL



I. TOPICS

- A. The sequencing of topics in the continuum was not intended to be a rigid guide nor to replace teacher creativity. One way variations may be made in the sequence is by using the floating topics at any point for motivation and interest.



- B. Two topics may be taught simultaneously, i.e., Numeration skills may be taught as they relate to other topics such as Addition and Subtraction, etc.

II. SKILLS

- A. Skills, within a level, are listed in sequential order providing a more effective progression.
- B. An entire topic, including all skills, the teacher pages in the related text, and accompanying mastery tests, should be carefully studied by the teacher prior to beginning actual instruction. Skills must be presented as related parts of a total concept if they are to be effectively used by the student. See Activities III A.
- C. Some skills may be taught simultaneously. Numeration skills may be taught as they relate to skills being covered in addition and subtraction. This will give a student immediate opportunity to carry out and practice the behavioral skills he is learning.
- D. Many of the pages in the Houghton Mifflin series contain a mixture of practice exercises covering several skills and/or more than one topic. These pages usually have been keyed to the most difficult skill on the page and are usually keyed to Mixed Practice. Teachers should check to be certain, before assigning a page, that the student knows the skills involved or assign only that part of the page which is suitable.

- E. Skills listed under In-Depth at each level in the continuum provide activities for students who are ready to extend their abilities. Mastery tests for most of these skills are not provided. Much of this material appears at another level where mastery is expected.

III. ACTIVITIES

- A. When a new topic is introduced at each level, it is recommended that it be developed through the use of concrete materials, moving toward the abstract.
- B. Houghton Mifflin duplicating masters and overhead visuals have been keyed, as they apply, under the heading Related Resources. Since no one listing of other commercial aids would be suitable for all students or available in all classrooms, space has been provided for each teacher to key in commercial aids and/or teacher-made aids available to them in their individual schools.
- C. The text pages keyed to each skill merely indicate the pages available in Houghton Mifflin. These pages should be considered as base materials only. The Houghton Mifflin series presents The Assignment Guide as an aid to help the teacher plan in minimum, average or maximum course of study. Since pupil's needs vary, some pupils will use only a portion of this material while others will need additional material from other sources. Addison-Wesley texts are still available for supplementary activities.
- D. The use of instructional games should be an integral part of the teaching strategy, particularly for the reluctant learner.

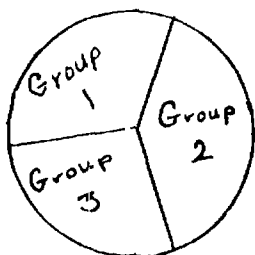
IV. PUPIL PLACEMENT

- A. Initial placement of a pupil on the continuum should be made after the teacher or teaching team has made a careful study of the pupil's record card from the previous year, coupled with observation of pupil performance during a period of review. An assessment of the pupil's knowledge of numeration skills, and the basic operations should indicate the level at which the student can be assigned.
- B. As achievement test scores are examined it should be noted that a grade score indicates the point at which the student can no longer function independently rather than the instructional level.
- C. Transfer students entering school at any time during the year, can be placed according to recommendations of previous teacher.
- D. Pupils entering school who have had no prior experience in this program can be placed by teacher observation or by teacher-made tests.

V. GROUPING

- A. Whether pupils are assigned heterogeneously or homogeneously, small grouping for individualized instruction within the classroom is essential for maximum student achievement.

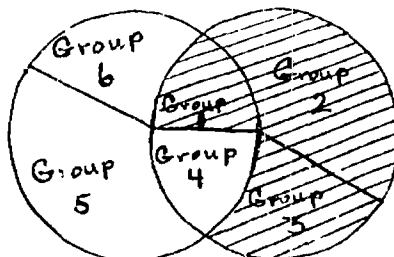
Teacher A



Homogeneous

Teacher B

Teacher C



Heterogeneous

Possibilities for grouping patterns are endless. They must be formulated on the basis of student needs as they relate to individual school facilities and organization. Whatever the design for implementation, groups must be kept flexible to enable each student to start the learning sequence at the point which is most appropriate for him and can make steady progress in the mastery of the defined objectives.

- B. If a given set of pupils are working at the same level of the continuum and on the same topic, provision should be made through grouping for varying rates of learning, need for individual help and readiness for in-depth activities.

A possible grouping pattern.

| Level F | | Multiplication and Division | |
|---------|--|--|---|
| Wed. | <u>Total Group</u> | <u>Group 1 & 2</u> | <u>Group 3</u> |
| | 15 minute presentation Napier's Rods | 2-20 minute individual mixed practice | 45 minutes help students construct individual sets of Napier's Rods |
| Thurs. | <u>Group 1 & 2</u> | <u>Group 1</u> | <u>Group 3</u> |
| | 15 minute presentation review multiplication with regrouping | give individual assistance in practice work. Multiplication with regrouping p. _____ | complete construction of Napier's Rods Use rods to work problems. |
| | | <u>Group 2</u> | |
| | | independent work from board multiplication with regrouping | |
| Fri. | <u>TOTAL GROUP</u> | Educational Games | |

- C. If a given set of students is working on two or more levels of the continuum, it may be advantageous to keep them working on the same topic, thus allowing for some total group presentations.
- D. At times, student communication is more effective than teacher - student communication. Allow students to work in pairs if this seems mutually profitable.
- E. Older students can sometimes be paired with younger pupils to guide individual activities.
- F. Most students should work through all topics at a given level before moving on to the next level.
- G. Extremely capable students who express a very strong interest in a specific topic may, at the teacher's discretion, occasionally extend their study to skills beyond those listed at their prescribed level.
- H. Older students who appear to be reluctant learners may not engage in the study of all topics. Major emphasis should be placed on numeration skills, addition and subtraction, simple fractions, money and time. Emphasize those skills which will be most necessary for them in everyday living. This type of student may need to work across several levels of the continuum to develop a topic.
- I. If students become frustrated with the study of a given topic or skill, move on to a different topic for a time.
- J. Emphasis should always be placed on understanding rather than on the number of topics completed.

VI. MASTERY TESTS

- A. Copies of prepared mastery tests (A - G) are provided in the continuum. These can be duplicated or presented on the chalkboard or overhead projector. Some of these tests measure mastery of a single skill and others measure mastery of a number of related skills.
- B. It is not always desirable to use a mastery test immediately after the completion of the study. Some skills will require year long application before testing. The prepared mastery test or one comparable to it, can be given to determine if the student has maintained proficiency.
- C. Oral tests, administered individually to young pupils, could be given by an older student.
- D. Results of the mastery tests should be discussed with the pupil involved and/or with the parents at conference time. **DO NOT SEND MASTERY TESTS HOME.** All use of these tests should be made at school. Tests should then be destroyed.

VII. RECORD KEEPING

- A. Mastery test results are to be recorded on the student record card. Indicate percent scored with a check mark. Use the color which indicates the pupil's year in school.
- B. Mastery is indicated by a score of 70-100%. If a child scores less than this the first time the test is given, record that score in the appropriate box. After reteaching, test again, record again, etc. until mastery is attained. Teacher judgment should determine when to retest after reteaching to reduce the chance of having several check marks in the same box.
- C. As pupils move from school to school or within a school, the record should be transferred with all other records in his cumulative folder.
- D. An asterisk on the continuum indicates a teacher tested skill. The slashed marked area on the student record card indicates these teacher tested skills.

CONVERSION TABLES OF APPROXIMATE MEASURES

| APPROXIMATELY EQUIVALENT LINEAR UNITS | |
|---------------------------------------|--------------|
| Metric Unit | English Unit |
| 1 mm. | 0.04 in. |
| 1 cm. | 0.39 in. |
| 1 m. | 39.37 in. |
| 1 km. | 0.62 mi. |
| 2.54 cm. (exact) | 1 in. |
| 0.30 m. | 1 ft. |
| 0.91 | 1 yd. |
| 1.61 | 1 mi. |

| APPROXIMATELY EQUIVALENT UNITS OF AREA | |
|--|---------------|
| Metric Unit | English Unit |
| 1 sq. mm. | 0.002 sq. in. |
| 1 sq. cm. | 0.16 sq. in. |
| 1 sq. m. | 10.76 sq. ft. |
| 1 sq. km. | 0.39 sq. mi. |
| 6.45 sq. cm. | 1 sq. in. |
| 0.09 sq. m. | 1 sq. ft. |
| 0.84 sq. m. | 1 sq. yd. |
| 2.59 sq. km. | 1 sq. mi. |

| APPROXIMATELY EQUIVALENT UNITS OF CAPACITY | |
|--|--------------|
| Metric Unit | English Unit |
| 1 liter | 2.1134 pt. |
| 1 liter | 1.0567 qt. |
| 1 liter | 0.2642 gal. |
| 3.785 liters | 1 gal. |

MATHEMATICS CONTINUUM

LEVEL A

Kindergarten Manual

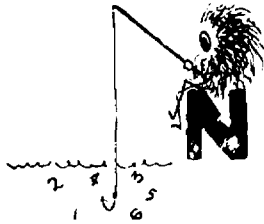
The Houghton Mifflin Kindergarten program is organized in two parts. Part I is to be taught informally. Part II is taught through the use of the Kindergarten Workbook. Each of the four sections in Part I is related to Part II. These parts may be taught independently or in conjunction with each other. Part I and Part II are keyed to Level A of the Continuum to show their relationship to the skills presented there.

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and Continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

Non-Metric Geometry should be taught before Fractions so that children will become familiar with the term "region" before being asked to identify fractional parts of a region.

LEVEL A

NUMERATION



1. Classifies any collection of objects by orally listing the elements in the set or by identifying a property common to all members of the set.
2. Identifies the correct object or objects according to some common property such as: largest, smallest, longest, shortest, inside, outside, heavier, oldest, alike, different . . .
3. Matches the elements in a one-to-one correspondence when given two equivalent or non-equivalent sets of objects, up to ten.
4. Makes intuitive numerical comparisons without the use of one-to-one matching when given nonequivalent sets.
5. Identifies (orally or by marking) the cardinal number of a structured group to ten. Selects a set, or constructs a set, which contains as many objects as a given number, including zero.
- *6. Counts orally from one to ten.
- *7. Reads numerals (one to ten) orally from left to right.

Example

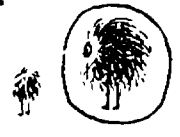
Numeration

"Ring the set of animals."

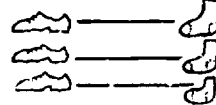


"Ring the tallest."

"Ring the heavier."



"Draw lines to match the objects in the sets."



"Mark the set with the most objects."

"Mark the set with the fewest objects."

"Mark each set of three."



"Say the numbers from one to ten."

"Read these numbers."
1 2 3 4 5 6 7 8 9 10

Textual ResourcesRelated ResourcesNotesNumeration

- | | | |
|--|--|--|
| 1. HM Book K Part I, T.E. Section I Activity 1 Section II Activities 1-15 HM Book K Part II, pp. 30-32 | <u>Instructo Primary</u> Felt Cut-Outs and Magnetic Primary Counting Shapes | |
| 2. HM Book K Part I, T.E. Section I Activities 2-8 Section II Activities 17, 26-30 HM Book K Part II, pp. 1-10 | See Numeration 1 | |
| 3. HM Book K Part I, T.E. Section II Activities 18, 22-25, 31 HM Book K Part II, pp. 33-39 | See Numeration 1 | |
| 4. HM Book K Part II, pp. 40-44 | See Numeration 1 | |
| 5. HM Book K Part I, T.E. Section II Activities 16, 19-21 Section III Activities 1-9, 12, 13, 18 HM Book K Part II, pp. 45-57, 59, 69-79, 84 | See Numeration 1 <u>Instructo Felt</u> Numerals and Magnetic Numerals | |
| 6. HM Book K Part I, T.E. Section III Activities 10, 11, 15, 16 HM Book K Part II, pp. 49, 52, 70, 74, 77 | <u>Milton-Bradley</u> Cubical Counting Blocks Beads on Shoestring | |
| 7. | See Numeration 5 <u>Instructo Walk-On</u> Number Line 0-10 | |

LEVEL: A

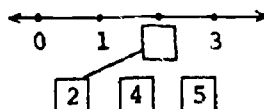
Numeration

8. Responds to questions related to the number sequence one to ten, e.g., tells what number comes before or after a given number, or in-between two numbers.
9. Mixed Practice.
10. In-Depth.

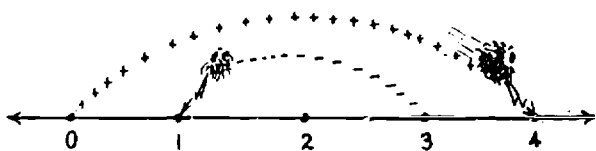
Example

Numeration

"Draw a line to the numeral that belongs in the \square ."



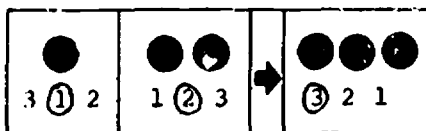
ADDITION AND SUBTRACTION



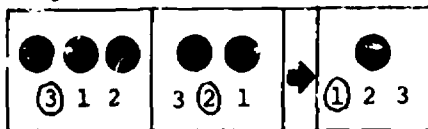
1. Circles the correct numeral for pictured addition statements, with sums to six.
2. Circles the correct numeral for pictured subtraction statements as an inverse of addition facts learned in skill 1.
3. In-Depth.

Addition and Subtraction

"Ring the correct numerals."



"Ring the correct numerals."



| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|---|--------------|
| <u>Numeration</u> | | |
| 8. HM Book K Part I, T.E. Section III Activities 14, 24, 25, 26 HM Book K Part II, pp. 60-67, 80, 81, 83 | See Numeration 7 <u>Instructo</u> or <u>Universal Stepping</u> <u>Stones</u> numerals 1-10 <u>Ideal Number Line</u> | |
| 9. HM Book K Part II, p. 82 | | |
| 10. HM Book K Part II, p. 58 | | |

Addition and Subtraction

| | |
|---|---|
| 1. HM Book K Part I, T.E. Section II Activities 32-36 Section III Activities 20, 23 HM Book K Part II, pp. 85-91 | <u>Weber Costello Visual</u> <u>Number Readiness Cards</u> 0-10 <u>Houghton Mifflin</u> <u>Notation Cards</u> |
| 2. HM Book K Part II, pp. 92-96 | See Add. and Sub. 1 |
| 3. HM Book K Part I, T.E. Section III Activities 21, 22 | |

LEVEL A

FRACTIONS

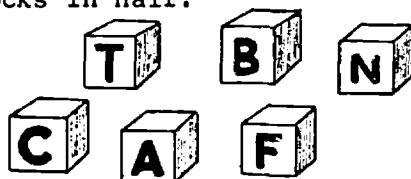


- *1. Divides a real object, picture of a real object, a set of real objects, or a set of pictures of real objects in "half" and identifies "one-half" of an object or set of objects. Limit 6.
- *2. Uses or responds correctly to the terms "whole" and "one-half" in reference to real objects, pictures of real objects, or sets of pictures of real objects. Limit 6.

Example

Fractions

"Separate this set of six blocks in half."



"Show me half of a circle."
"Find the half that matches it and show me the whole circle."

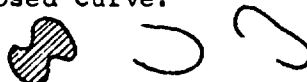
NON-METRIC GEOMETRY



- *1. Identifies a specific point.
- *2. Identifies a line as straight or curved.
- *3. Identifies a simple closed curve.
- 4. Identifies the inside or outside of simple closed curves.

Non-Metric Geometry

"Color the inside of the closed curve."



Textual ResourcesRelated ResourcesNotesFractions

1. HM Book K Part II,
See teacher activities
T.E. pp. 94, 96

Instructo Discover-
ing Fractions

2. HM Book K Part II,
See teacher activities
T.E. pp. 94, 96

See Fractions 1

Non-Metric Geometry

1. HM Book K Part I, T.E.
Section I Activities 9, 10
2. HM Book K Part I, T.E.
Section I Activities 11, 13
3. HM Book K Part I, T.E.
Section I Activities 17,
18
4. HM Book K Part I, T.E.
Section I Activities
19, 21, 22
HM Book K Part II,
pp. 11-13

LEVEL A

Non-Metric Geometry

- *5. Identifies the following figures on request: circle, triangle, rectangle, square. Responds to these words when used in directions.

6. In-Depth.

Example

Non-Metric Geometry

"Color the objects that are inside circles."



METRIC GEOMETRY



- *1. Uses some specific unit for comparison in measurement.

Metric Geometry

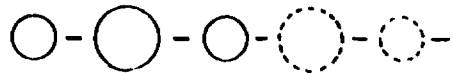
SPECIAL TOPICS



1. Identifies or continues patterns using geometric shapes.
Teacher note: (Pattern recognition leads to development of logical thinking and prepares the child for finding patterns in numbers.)

Special Topics

"Complete the patterns."



Textual ResourcesRelated ResourcesNotesNon-Metric Geometry

5. HM Book K Part I, T.E.
Section I Activities
20, 26, 30, 33
HM Book K Part II, pp.
14-23
6. HM Book K Part I, T.E.
Section I Activities
12, 14-16, 23-25, 27,
28, 31, 32
HM Book K Part II, p. 28,
29, 68

Instructo Geometric
Shapes

Metric Geometry

1. HM Book K Part I, T.E.
Section IV Activities
1-16

Ideal Liquid
Measures

Special Topics

1. HM Book K Part II,
pp. 24-27

Instructo Primary
Felt Cut-Outs and
Magnetic Primary
Counting Shapes

LEVEL A
TESTS
and
ANSWER KEYS



LEVEL A

Name _____

NUMERATION

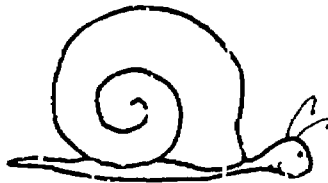
Date _____

Skill 1, 2, (Page 1 of 2 pages)

Ring the set of animals.



Ring the largest.



Ring the tallest.



LEVEL A

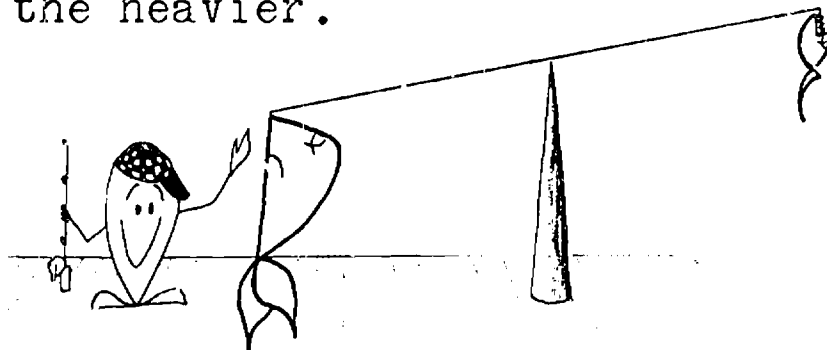
Name _____

NUMERATION

Date _____

Skill 1, 2 (Page 2 of 2 pages)

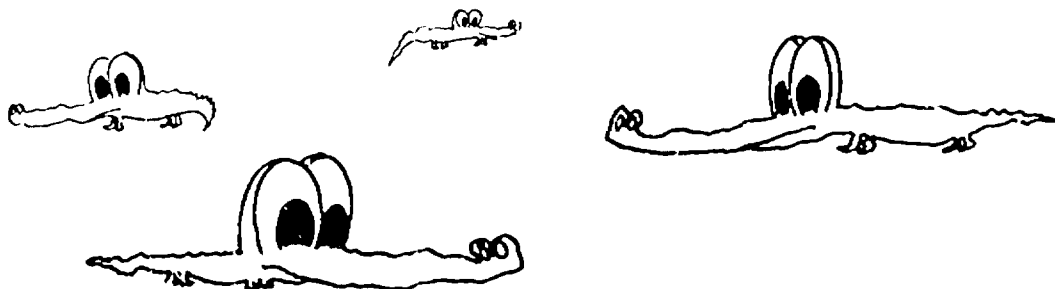
Ring the heavier.



Ring the oldest.



Ring the two that are the same size.



LEVEL A

Name _____

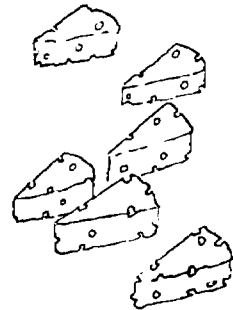
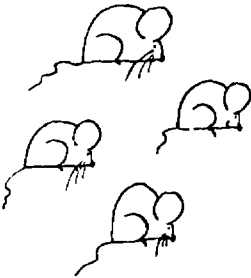
NUMERATION

Date _____

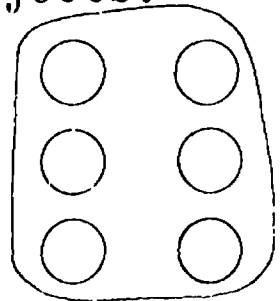
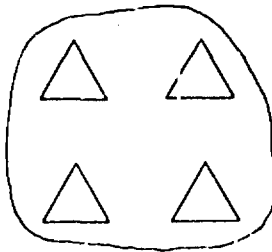
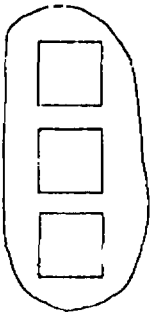
Skill 3, 4

Match the objects in the sets.

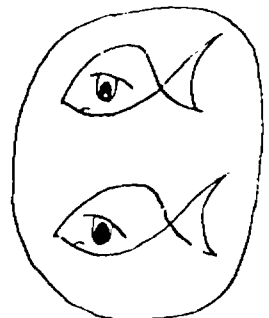
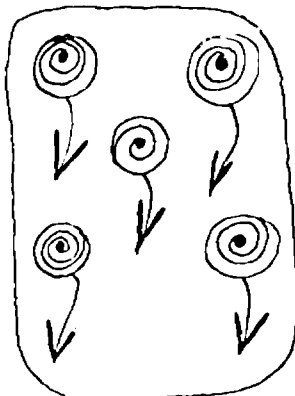
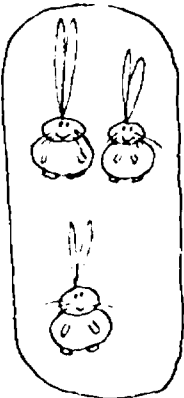
Mark the set which has more.



Mark the set with the most objects.



Mark the set with the fewest objects.



LEVEL A

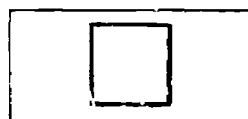
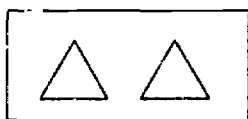
Name _____

NUMERATION

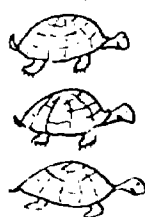
Date _____

Skill 5, 8

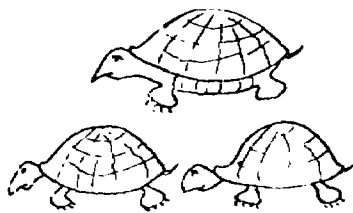
Mark the set of zero.



Ring the numeral for the number of the set.

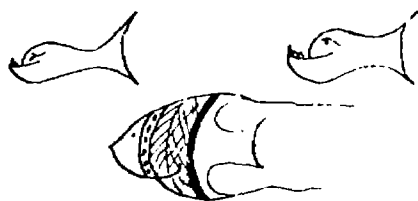


6



4

5

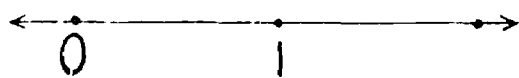


3

5

2

Draw a line to the block that belongs in the space.



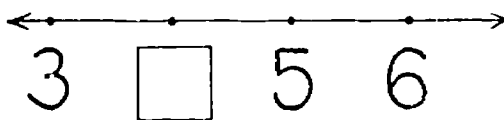
4



3



2



LEVEL A

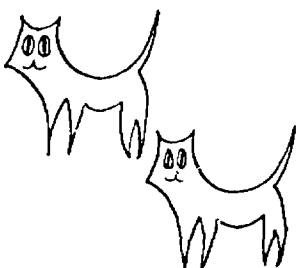
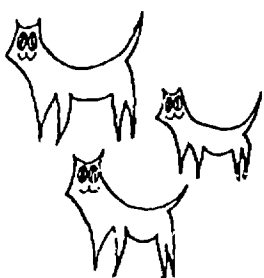
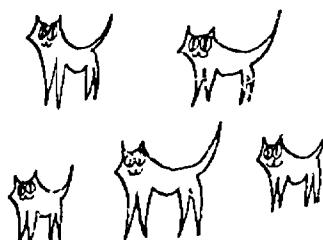
Name _____

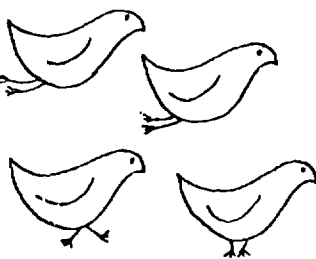
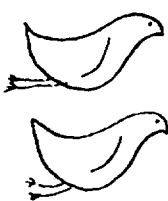
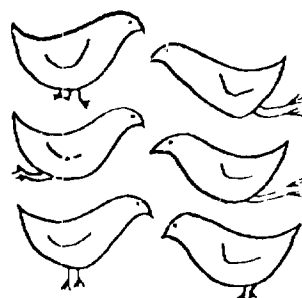
ADDITION AND SUBTRACTION

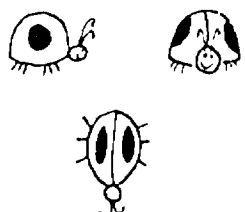

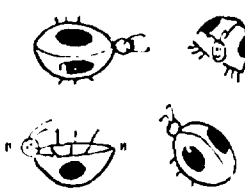
Date _____

Skill 1

Ring the correct numerals.

| | | | |
|--|---|---|--|
|  |  | → |  |
| 3 2 1 | 3 1 4 | | 4 3 5 |

| | | | |
|--|---|---|--|
|  |  | → |  |
| 2 3 4 | 2 3 4 | | 4 6 5 |

| | | | |
|---|---|---|--|
|  |  | → |  |
| 3 2 4 | 2 1 3 | | 3 4 5 |

LEVEL A

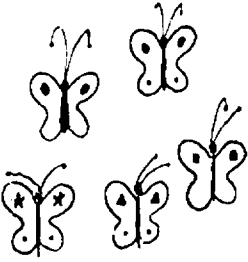

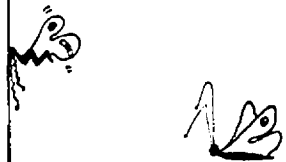
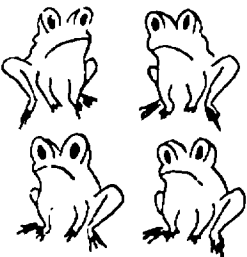
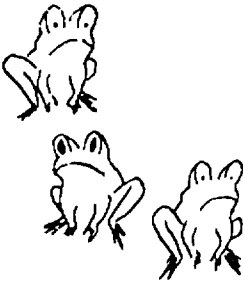




Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Ring the correct numerals.

| | | | |
|--|--|---|--|
|  4 5 3 |  3 2 4 | → |  2 3 1 |
|  3 4 5 |  4 3 2 | → |  1 3 2 |
|  4 3 2 |  2 3 1 | → |  2 3 1 |

LEVEL A

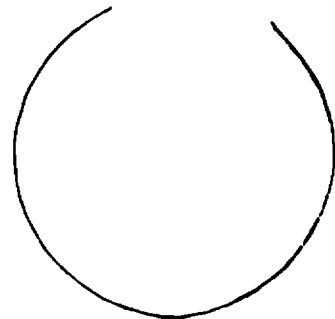
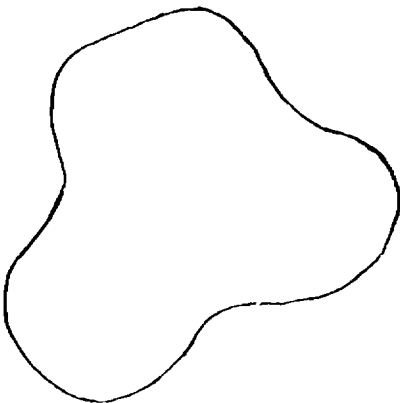
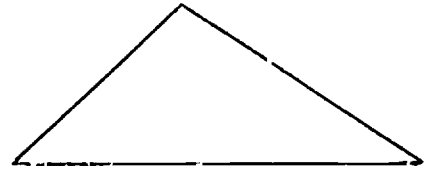
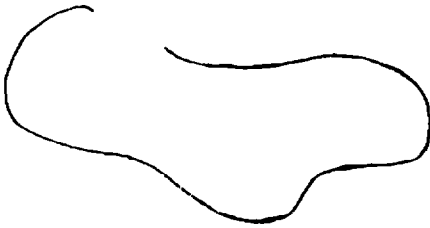
Name _____

NON-METRIC GEOMETRY

Date _____

Skill 4

Color the inside of the closed curves.



LEVEL A

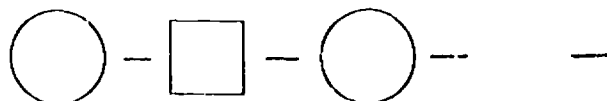
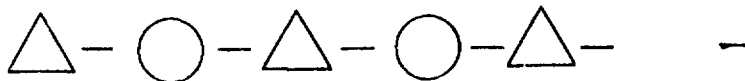
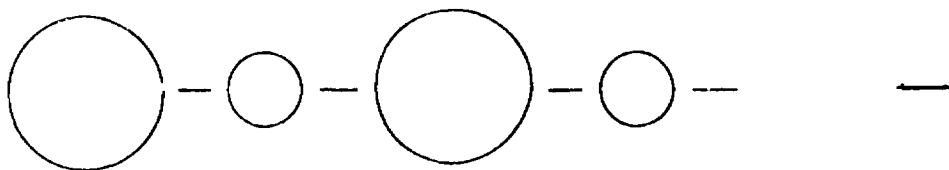
SPECIAL TOPICS

Skill 1

Name _____

Date _____

Complete the pattern.



LEVEL A

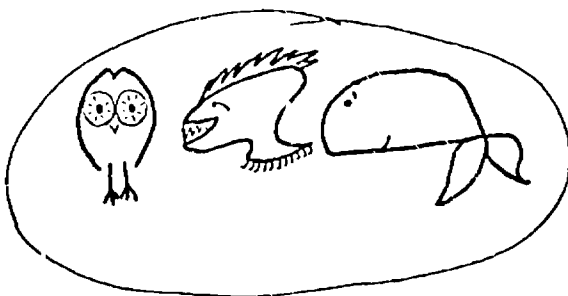
Name _____

NUMERATION

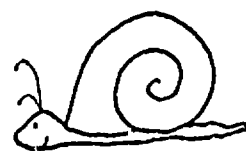
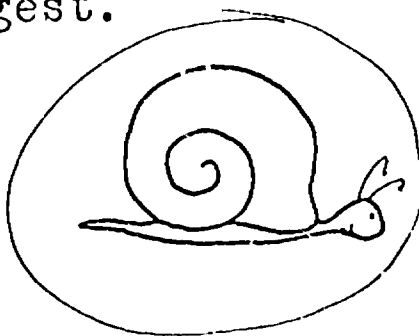
Date _____

Skill 1, 2, (Page 1 of 2 pages)

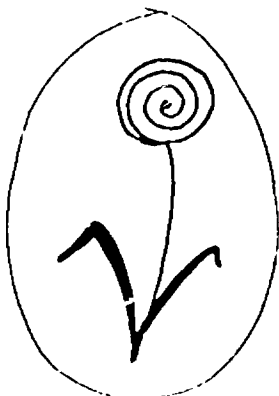
Ring the set of animals.



Ring the largest.



Ring the tallest.



LEVEL A

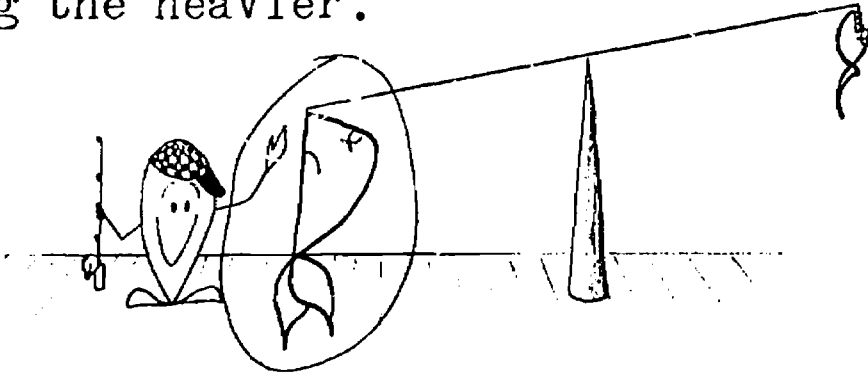
Name _____

NUMERATION

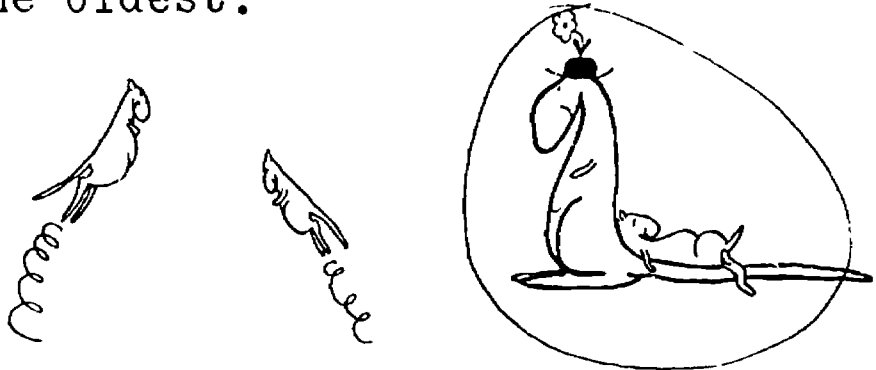
Date _____

Skill 1, 2 (Page 2 of 2 pages)

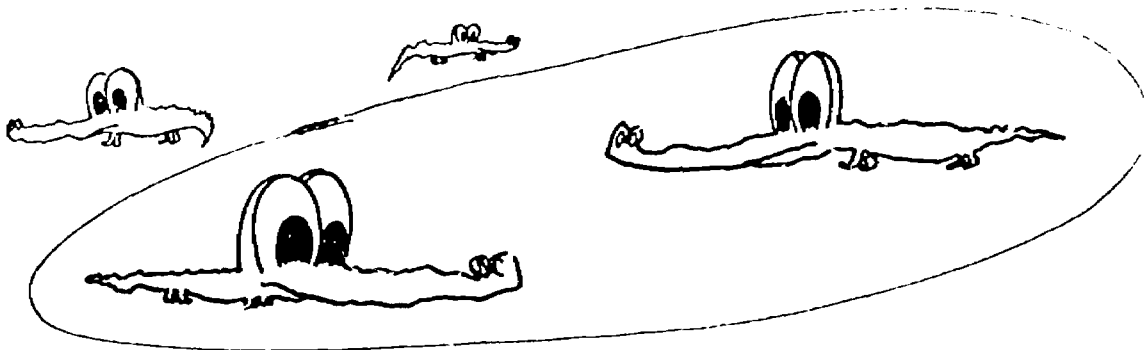
Ring the heavier.



Ring the oldest.



Ring the two that are the same size.



LEVEL A

Name _____

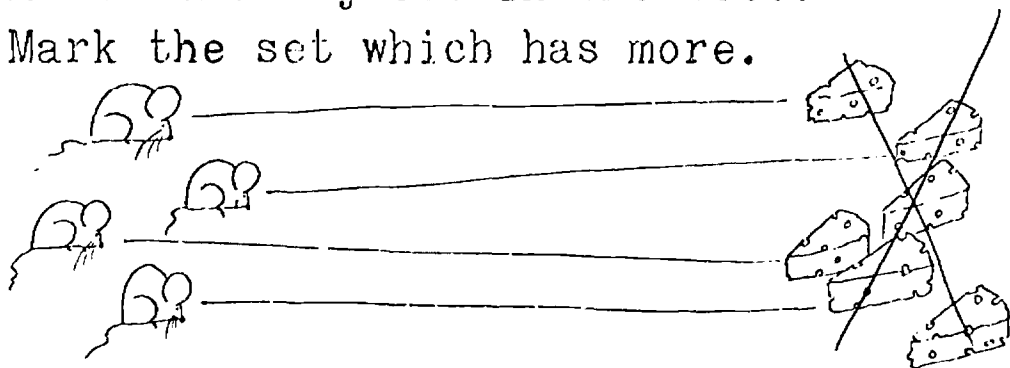
NUMERATION

Date _____

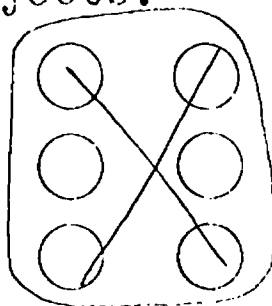
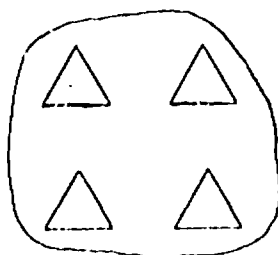
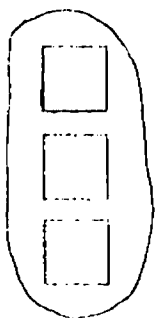
Skill 3, 4

Match the objects in the sets.

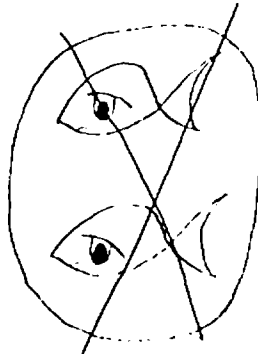
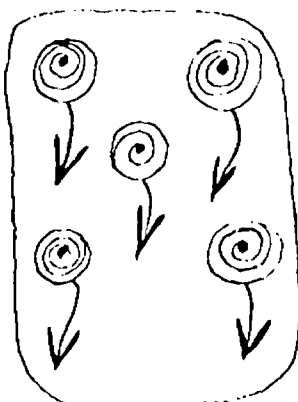
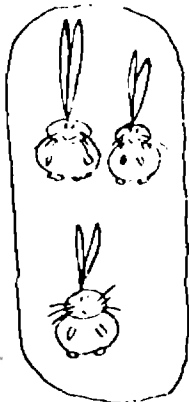
Mark the set which has more.



Mark the set with the most objects.



Mark the set with the fewest objects.



LEVEL A

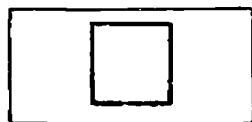
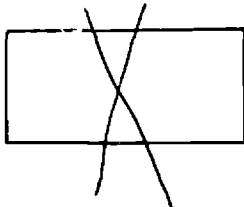
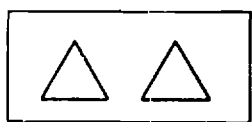
NUMERATION

Skill 5, 8

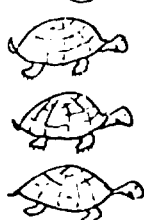
Name _____

Date _____

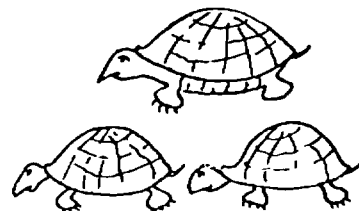
Mark the set of zero.



Ring the numeral for the number of the set.

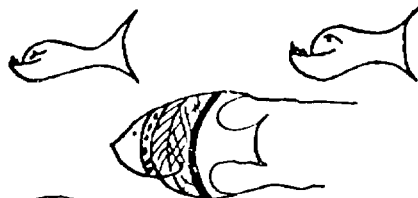


6



4

5



3

5

2

Draw a line to the block that belongs in the space.



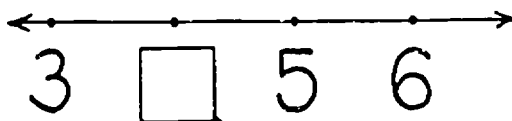
4



3



2



LEVEL A

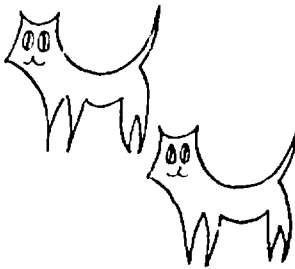
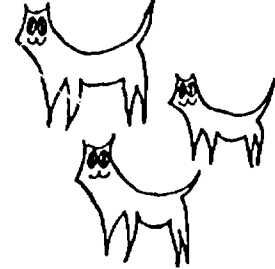
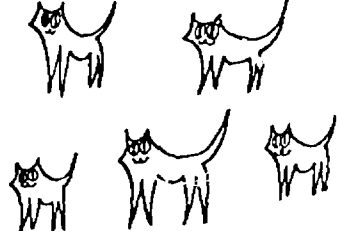
Name _____

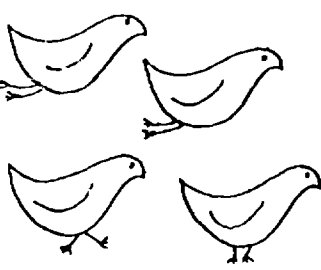
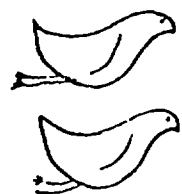
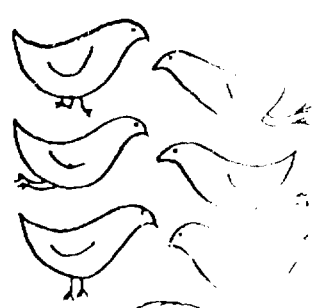
ADDITION AND SUBTRACTION

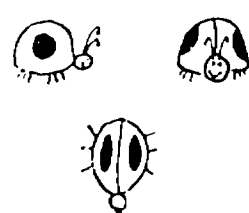

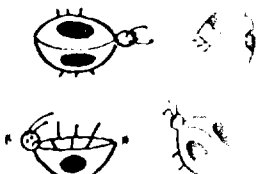
Date _____

Skill 1

Ring the correct numerals.

| | | | |
|---|--|---|---|
|  3 (2) 1 |  (3) 1 4 | → |  4 3 (5) |
|---|--|---|---|

| | | | |
|---|--|---|---|
|  2 3 (4) |  (2) 3 4 | → |  4 (6) |
|---|--|---|---|

| | | | |
|--|--|---|---|
|  (3) 2 4 |  2 (1) 3 | → |  3 (4) |
|--|--|---|---|

LEVEL A

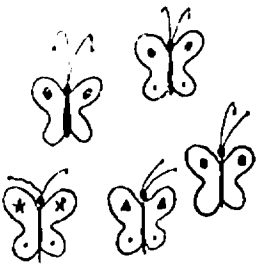
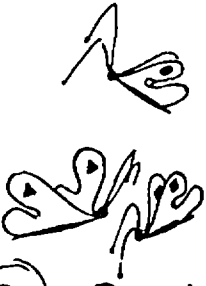
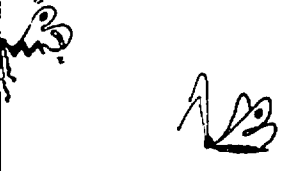
Name _____

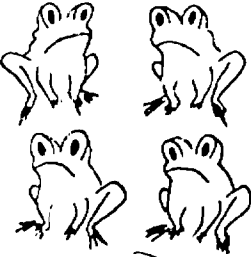


ADDITION AND SUBTRACTION




Date _____

Skill 2

Ring the correct numerals.

| | | | |
|--|--|---|---|
|  4 (5) 3 |  (3) 2 4 | → |  (2) 3 1 |
|--|--|---|---|

| | | | |
|--|--|---|--|
|  3 (4) 5 |  4 (3) 2 | → |  (1) 3 2 |
|--|--|---|--|

| | | | |
|--|--|---|--|
|  4 (3) 2 |  2 3 (1) | → |  (2) 3 1 |
|--|--|---|--|

LEVEL A

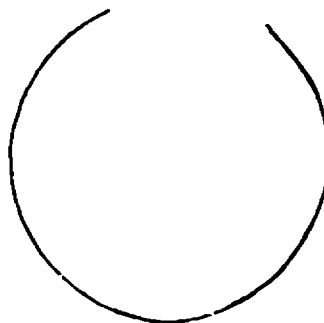
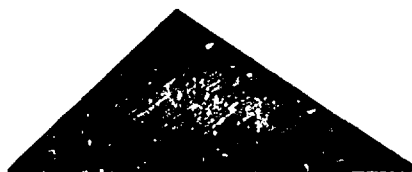
Name: _____

NON-METRIC GEOMETRY

Date: _____

Skill 4

Color the inside of the closed curves.



LEVEL A

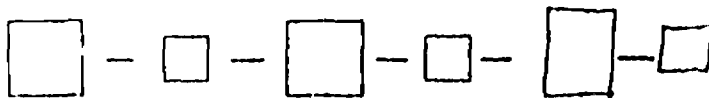
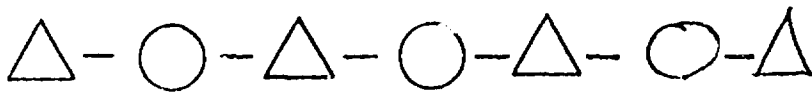
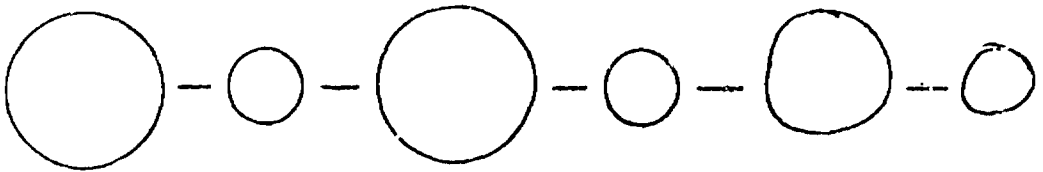
SPECIAL TOPICS

Skill 1

Name _____

Date _____

Complete the pattern.



MATHEMATICS CONTINUUM

LEVEL B

BOOK 1

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and Continuum mastery tests should be used to provide sufficient evidence to check the 70 - 100% (mastery level) for each skill.

It is suggested that Fractions be taught before Geometry topics are introduced since some activities in the Geometry sections may involve knowledge of fractional parts.

LEVEL B

NUMERATION



Review of Level A Skills

- A Numeration 1
- A Numeration 2
- A Numeration 3

- *1. Recognizes the cardinal number of a set.
- *2. Writes the digits from 0 to 9.
- *3. Reads numerals from any starting point when presented with an ordered arrangement, 0 to 100.
- *4. Counts orally by ones to 100.
- *5. Counts orally by tens to 100 from any multiple of ten starting point.
- 6. Writes numerals 1 to 10, from left to right on an ordered set of pictures.
- 7. Writes numerals from 1 to 100 in sequential order, or on an ordered set of pictures, or completes dot to dot pictures.
- 8. Writes numerals in sequential forward or reverse order for small blocks of numbers, or completes dot to dot pictures.

Example

Numeration

"Read these numbers starting here and ending here." (Given an ordered sequence from 1 to 100, child reads the indicated block of numbers. e.g. 20 to 45.)

"Count by tens from 20 to 80."

"Write the numeral in each ☐."



4



5



6

"Write the missing numerals."

"Connect the dots in order."

"Write the missing numerals."

| | | | |
|----|----|----|----|
| 32 | 33 | 34 | 35 |
|----|----|----|----|

Textual ResourcesNumerationReview

HM Book 1, pp. 1, 2
HM Book 1, pp. 3, 4
HM Book 1, pp. 5-10

1. HM Book 1, pp. 11-40

2. HM Book 1, pp. 11-14,
17-24, 26, 28-38, 40

3.

4.

5.

6.

7. HM Book 1, pp. 55, 56,
213, 254

8. HM Book 1, pp. 145, 146,
150, 245, 246, 255

Related Resources

HM Visuals 1 (1)

HM Visuals 1 (2-4)
HM Masters 1 (1-5)

HM Visuals 1 (15)
HM Masters 1 (22)

Notes

LEVEL B

Numeration

9. Identifies what number comes immediately before or after a given number or between two numbers, for numbers to 100, with or without structured groups.
10. Selects the greater (greatest), smaller (smallest) for numbers zero to 100. Places $>$ or $<$ between two numbers to indicate the greater or lesser.
11. Reads words orally and matches words with numerals or structured groups when given number words for numbers zero to ten.
12. Places an X on the object with the specified ordinal position to the twelfth.
13. States, selects, or writes the cardinal number for structured groups of up to 100 objects as tens and ones. Oral or written directions.
14. In-Depth.

Example

Numeration

"What number comes after:"

17 18

9 10

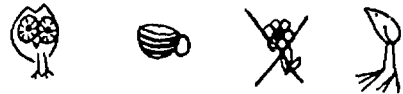
"Write $>$ or $<$ in each \bigcirc ."

9 \bigcirc $>$ 6

"Match the number words with the numerals."

five  2
two  5

"Put an X on the third object."



"Write the numeral in each \square ."

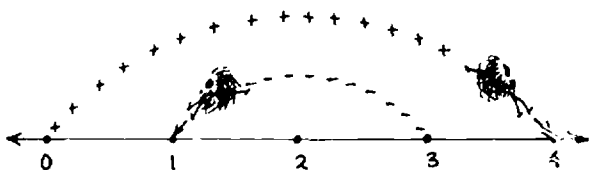


1 tens 3 ones

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--|--------------|
| <u>Numeration</u> | | |
| 9. HM Book 1, p. 147 | | |
| 10. HM Book 1, pp. 41-54, 135, 136, 148 | HM Visuals 1 (5-7) | |
| 11. | | |
| 12. HM Book 1, teacher's page 45, 73 | | |
| 13. HM Book 1, pp. 121-134, 137-144, 149, 247, 248, 257 In-Depth, 251-253 256-262 | HM Visuals 1 (14, 22) HM Masters 1 (20, 21, 45, 46) | |
| 14. HM Book 1, pp. 311-316 | | |

LEVEL B

ADDITION AND SUBTRACTION



1. Rings or writes the number of objects in each of two sets and the number of objects when put together. Sums to 5.
2. Circles or writes in numerals (missing sums and/or addends) to make true number sentences for pictured or number line addition and subtraction situations. Number sentences contain +, -, and = signs. Sums to 12.

Teacher note: Begin development of the commutative principle for addition and the inverse operation of addition and subtraction.

a. Combinations to 5

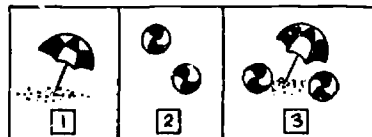
b. Combinations to 10

3. Finds the sums, differences, or missing addends for addition and subtraction fact statements with + and - signs. Problems written in both horizontal and vertical form. No pictured groups as aids. Timed mastery test. Sums to 12.

Example

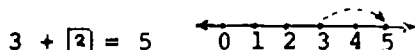
Addition and Subtraction

"Write the numeral in each ."



"Draw the move on the number line."

"Write the numeral in each ."



"Name the sum or missing addend."

$$5 - \boxed{3} = 2$$

$$\begin{array}{r} 5 \\ + 2 \\ \hline \boxed{7} \end{array}$$

Textual ResourcesRelated ResourcesNotesAddition and Subtraction

1. HM Book 1, pp. 57-60

2.

Combinations to 5:
HM Book 1, pp. 61-68,
70-82, 99-102, 119

Combinations to 10:
HM Book 1, pp. 151, 157,
173, 174, 239-242

HM Visuals 1 (8-10)
HM Masters 1 (6, 8,
9, 14)

HM Masters 1 (41,
42)

3.

LEVEL 2

Addition and Subtraction

3. (cont.)

a. Combinations to 5

b. Combinations to 10

c. Combinations to 12

4. Writes or completes a pair of equations that illustrate the commutative principle for addition. Sums to 12.

Combinations to 5

5. Completes addition and subtraction sentences with missing sums or missing addends associated with certain number families. Inverse operation. Sums to 12.

a. Combinations to 5

b. Combinations to 10

c. Combinations to 12

6. Selects other names for numbers by matching addition or subtraction expressions with pictured groups or numerals to 12.

Example

Addition and Subtraction

"Write the numeral in each .

$$\boxed{4} + 1 = 5 \quad \boxed{1} + 4 = 5$$

"Write the numeral in each .

$$5 + 1 = \boxed{6} \quad 1 + 5 = \boxed{6}$$

$$6 - 1 = \boxed{5} \quad 6 - 5 = \boxed{1}$$

"Write names for four."

$$\begin{array}{ccc} \boxed{3} & + & \boxed{4} \\ \boxed{2} & + & \boxed{2} \\ \boxed{1} & + & \boxed{3} \end{array}$$

Textual ResourcesRelated ResourcesNotesAddition and Subtraction

3.

Combinations to 5:
HM Book 1, pp. 87, 88,
105, 107, 108, 120

HM Masters 1 (16,
19)

Combinations to 10:
HM Book 1, pp. 157, 158,
172, 244, 309

HM Masters 1 (23,
43)

Combinations to 12:
HM Book 1, pp. 289, 293,
294, 302, 303, 305

HM Masters 1 (55,
56)

4.

Combinations to 5:
HM Book 1, pp. 69, 89, 90

HM Masters 1 (7)

5.

Combinations to 5:
HM Book 1, pp. 91-97

HM Masters 1 (10,
11)

Combinations to 10:
HM Book 1, pp. 152-155,
159-162, 165-169, 195, 196,
219-223, 227, 228, 235, 236

HM Visuals 1 (21)
HM Masters 1 (25,
26, 32, 34, 38)

Combinations to 12:
HM Book 1, pp. 278, 283,
284, 291

6. HM Book 1, pp. 83-86, 98,
163, 164, 170, 171, 225,
226, 229, 230, 233, 234,
237, 238, 243, 281, 282,
287, 288, 306, 317, 318

HM Visuals 1 (11, 16,
17, 21)
HM Masters 1 (12, 24,
27, 35, 39, 51, 52,
54)

LEVEL B

Addition and Subtraction

7. Solves or completes one step word problems with pictures which require the use of addition and subtraction facts through sums to 12.
8. Says the word: plus (and), minus (less), and is equal to when confronted with symbols +, -, and =. Circles the numerals which indicate the sum or addends in a number sentence. (Students should be able to do this as a result of oral usage in previous skills.)
9. Writes the missing operation symbol or relation symbol to make a number sentence true.
10. In-Depth.

Example

Addition and Subtraction

"Susan had 3 dolls. For her birthday she received 1 more. How many does she have now?"

"Read this number sentence aloud."

$$5 + 4 = 9$$

"Write > , < , or = in each \bigcirc . "

$$5 - 2 \bigcirc 4$$

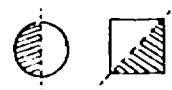
FRACTIONS



1. Identifies one-half or one-fourth of an object or set of objects.

Fractions

"Shade one - half of each region."



| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--|--------------|
| <u>Addition and Subtraction</u> | | |
| 7. HM Book 1, pp. 197, 198 teacher's page 214, 215 | | |
| 8. | | |
| 9. HM Book 1, pp. 103, 104, 106, 156, 180, 231, 301 | HM Masters 1 (15, 28, 36, 58) | |
| 10. Associative property: HM Book 1, pp. 175-179, 181, 182, 215-218, 224, 232, 277, 279, 280, 285, 286, 290, 292, 307, 308 Adding and subtracting with tens and ones. HM Book 1, pp. 249, 250, 263-276, 295-300, 304, 310 | HM Visuals 1 (18, 25) HM Masters 1 (31, 33, 37, 53, 59) HM Visuals 1 (23, 24) HM Masters 1 (44, 47, 48, 49, 57, 60) | |

Fractions

- | | |
|--|--------------------------|
| 1. HM Book 1, pp. 113, 114 199, 200, 202, 203 | HM Visuals 1 (13, 20) |
|--|--------------------------|

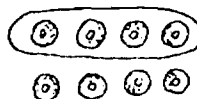
LEVEL B

Fractions

2. Divides an object or set of objects in halves or fourths.
3. Mixed Practice.

Example

"Ring one-half of each set."



NON-METRIC GEOMETRY



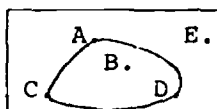
Review of Level A Skills

A Non-Metric Geometry 3
A Non-Metric Geometry 4

1. Identifies specific points inside and outside and on closed curves.
2. Identifies the following figures as special closed curves: triangle, rectangle, square, circle. Responds to these words when used in directions
3. Identifies the area inside a closed curve as a region.

Non-Metric Geometry

"Draw closed curves with the points: On, Inside, and Outside."



On - A C D
Inside - B
Outside - E

"Ring the squares."

"Draw lines under the circles."

"Complete the curves in blue.
Color the inside of the triangle red."



Textual ResourcesRelated ResourcesNotesFractions

2. HM Book 1, pp. 201, 204

HM Visuals 1 (20)

HM Masters 1 (30)

3. HM Book 1, p. 214

Non-Metric Geometry

Review

HM Book 1, p. 183

HM Book 1, p. 184

1. HM Book 1, pp. 185-188

HM Visuals 1 (19)

HM Visuals 1 (19)

2. HM Book 1, pp. 189-192

3. HM Book 1, pp. 189-194

HM Masters 1 (29)

LEVEL B

METRIC GEOMETRY

Review of Level A Skills

A Metric Geometry 1

1. Uses the inch as a standard unit of measure.
- *2. States and shows how many cups are equivalent to a pint and how many pints are equivalent to a quart and vice versa.



Example

Metric Geometry

"Measure each line segment.
Write the numeral in each .

A. _____ inches

"How many cups will it take
to fill this pint jar?"

TIME

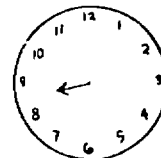


1. Writes numerals to twelve on a clockface.
2. States that it is ___ o'clock, past ___ o'clock or before ___ o'clock when presented with a clockface which has only an hour hand pointing to or between numerals on the face.
3. States that it is ___ o'clock when presented with a completed clockface with two hands.
4. States that it is half past ___ when presented with a completed clockface with two hands.

Time

"Write the numerals on the clockface."

"This clockface shows that it is past 8 o'clock."



"This clockface shows that it is 10 o'clock."



"This clockface shows that it is half past 2 o'clock."



Textual ResourcesRelated ResourcesNotesMetric GeometryReview

HM Book 1, pp. 205, 206

1. HM Book 1, pp. 207-210
In-Depth pp. 211, 212

2. HM Book 1, teacher's
page 134-137
HM Book 1, pp. 109-112

HM Visuals 1 (12)
HM Masters 1 (18)

Time

1.

2.

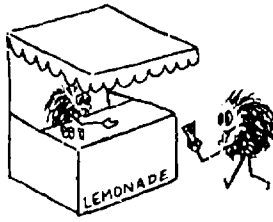
3. HM Book 1, pp. 115, 116

4. HM Book 1, pp. 117, 118

HM Masters 1 (19)

LEVEL B

MONEY



1. Selects the coin: penny, nickel, dime, when presented with the coins or pictures.
2. Matches coins, pennies nickels, or pictures of them with their numerical value or with value in other coins.
3. Finds the value of collections of pennies, nickels and dimes and responds to use of ¢ sign.
4. In-Depth.

Example

Money

"Show me a nickel."

"Show me the number of pennies that are equivalent to a nickel."

"What is the total value of this set of coins?"

Textual ResourcesMoney

1.

Felt and Magnetic
Enlarged U.S. Coins2. HM Book 1, pp. 99,
138

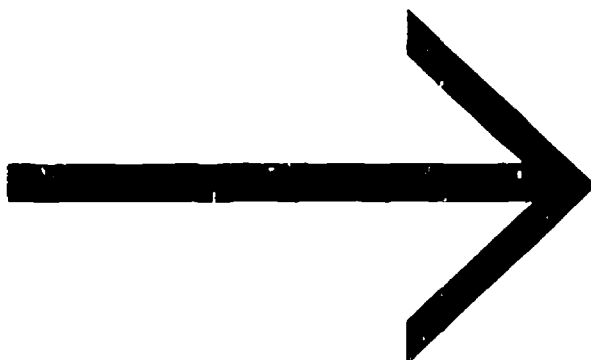
HM Masters 1 (13)

3. HM Book 1, pp. 100,
127HM Masters 1 (40,
50)4. HM Book 1, pp. 238,
273, 274

HM Masters 1 (40)

Notes

LEVEL B
TESTS
and
ANSWER KEYS



LEVEL B


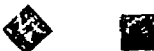







Name _____

NUMERATION

Date _____

Skill 6, 8

1. Write the numeral in each .

| | | |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  |  |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |

2. Write the numerals from 72 to 45 backwards.

| | | | | | | | | | |
|----|--|--|--|--|--|--|----|----|----|
| 72 | | | | | | | | | |
| 62 | | | | | | | | | |
| | | | | | | | 45 | 44 | 43 |

LEVEL B

Name _____

NUMERATION

Date _____

Skill 7

1. Write numerals (1 - 100) forward.

| | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|
| 0 | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 100 | | | | | | | | | |

LEVEL B

NUMERATION

Skill 9

Name _____

Date _____

Write in the missing number.

AFTER

56, _____

28, _____

70, _____

32, _____

BEFORE

_____, 51

_____, 63

_____, 89

_____, 15

BETWEEN

65, _____, 67

27, _____, 29

44, _____, 46

96, _____, 98

BEFORE AND AFTER

_____, 86, _____

_____, 82, _____

_____, 42, _____

_____, 47, _____

LEVEL B

Name _____

NUMERATION

Date _____

Skill 10

1. Draw a circle around the largest number.

7 5 9

2. Draw a circle around the smallest number.

73 37 75

3. Put $>$ or $<$ in the circles.

87 ○ 88

99 ○ 8

49 ○ 45

42 ○ 71

35 ○ 30

18 ○ 34

91 ○ 93

9 ○ 10

0 ○ 2

5 ○ 7

8 ○ 2

1 ○ 9

LEVEL B

Name _____

NUMERATION

Date _____

Skill 11

Draw a ring around the numeral that means the same as the number word.

| | | | |
|-------|---|-------|----|
| Eight | 3 | Two | 6 |
| | 8 | | 2 |
| | 9 | | 3 |
| Four | 6 | Six | 6 |
| | 5 | | 9 |
| | 4 | | 7 |
| Three | 1 | Ten | 4 |
| | 9 | | 10 |
| | 3 | | 3 |
| Nine | 5 | Five | 2 |
| | 9 | | 5 |
| | 3 | | 8 |
| One | 8 | Seven | 6 |
| | 7 | | 3 |
| | 1 | | 7 |

LEVEL B

NUMERATION

Skill 12

Name _____

Date _____

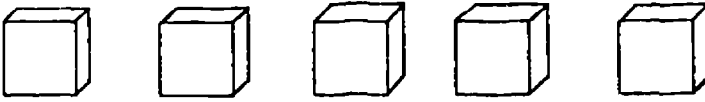
1. Put an X on the fifth umbrella.



2. Put an X on the seventh boy.



3. Put an X on the third box.



4. Put an X on the eleventh apple.



5. Put an X on the twelfth circle.



LEVEL B

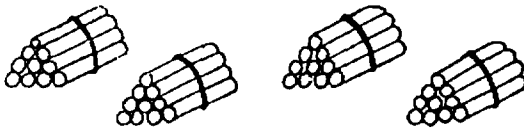
NUMERATION

Skill 13

Name _____

Date _____

1. Write the number of tens and ones in these pictures.



1. _____ tens

_____ ones

2.

2. _____ tens



_____ ones

3.

3. _____ tens



_____ ones

4.

4. _____ tens



_____ ones

LEVEL B

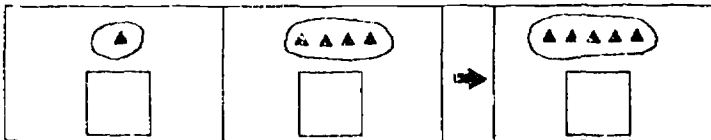
Name _____

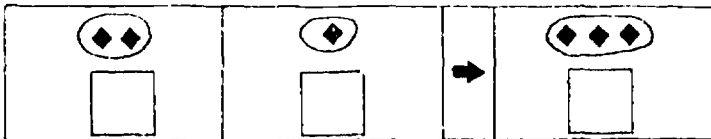
ADDITION AND SUBTRACTION

Date _____



Skill 1, 2

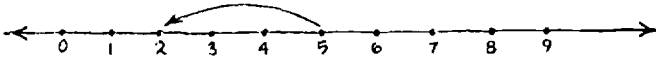
Write the numeral in each .

1. 

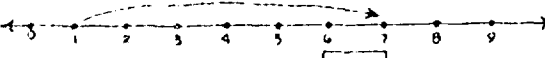
2. 

Write the numeral in the .

1.  4 +  5

2.  - 3 = 2

3.  9 -  =  3

4.  1 + = 7

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 1 of 5 pages)

Timed: 5 minutes

ADD.

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 7 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ + 1 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 3 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 8 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ + 4 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 1 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 9 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 6 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 7 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 9 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 2 \\ + 4 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ + 5 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ + 2 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ + 4 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ + 4 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

LEVEL: B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 2 of 5 pages)

Timed: 5 minutes

ADD.

$$\begin{array}{r} 9 \\ +1 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +4 \\ \hline \end{array}$$

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 3 of 5 pages)

Timed: 5 minutes

Subtract.

| | | | | | |
|--|---|--|---|--|--|
| $\begin{array}{r} 8 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -1 \\ \hline \end{array}$ |
|--|---|--|---|--|--|

| | | | | | |
|--|--|--|--|--|--|
| $\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ -1 \\ \hline \end{array}$ |
|--|--|--|--|--|--|

| | | | | | |
|---|--|--|--|--|---|
| $\begin{array}{r} 11 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -5 \\ \hline \end{array}$ |
|---|--|--|--|--|---|

| | | | | | |
|--|--|---|--|--|--|
| $\begin{array}{r} 4 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -3 \\ \hline \end{array}$ |
|--|--|---|--|--|--|

| | | | | | |
|--|--|---|---|---|--|
| $\begin{array}{r} 6 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -4 \\ \hline \end{array}$ |
|--|--|---|---|---|--|

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 4 of 5 pages)

Timed: 5 minutes

Subtract.

| | | | | | |
|---|---|--|--|--|--|
| $\begin{array}{r} 10 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -3 \\ \hline \end{array}$ |
|---|---|--|--|--|--|

| | | | | | |
|--|--|---|--|---|---|
| $\begin{array}{r} 8 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -5 \\ \hline \end{array}$ |
|--|--|---|--|---|---|

| | | | | | |
|--|--|--|--|--|---|
| $\begin{array}{r} 7 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -5 \\ \hline \end{array}$ |
|--|--|--|--|--|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 11 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -3 \\ \hline \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|--|---|---|--|
| $\begin{array}{r} 11 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -4 \\ \hline \end{array}$ |
|---|---|--|---|---|--|

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (5 of 5 pages)

Find the sum or difference.

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 4 \\ \hline \end{array}$$

$$8 + 7 =$$

$$9 - 2 =$$

$$4 + 3 =$$

$$10 - 1 =$$

$$11 + 5 =$$

LEVEL B

ADDITION AND SUBTRACTION

Skill 4, 5

Name _____

Date _____

Write the numeral in each .

$$2 + \square = 6$$

$$7 + 3 = \square$$

$$4 + 2 = \square$$

$$3 + \square = 10$$

$$\square + 2 = 8$$

$$0 + \square = 12$$

$$6 + \square = 8$$

$$\square + 0 = 12$$

$$5 + \square = 9$$

$$\square + 5 = 9$$

$$4 + \square = 7$$

$$1 + 6 = \square$$

$$\square + 3 = 7$$

$$6 + \square = 7$$

$$5 + \square = 7$$

$$\square - 3 = 4$$

$$\square + 2 = 7$$

$$7 - 4 = \square$$

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 6

Circle all numbers which are names for how many are in the sets.

1. ○ ○ ○ ○ ○ ○ ○

10-3

6

4+3

2. $\begin{array}{cccc} \triangle & \triangle & \triangle & \\ \triangle & \triangle & \triangle & \triangle \\ \triangle & \triangle & \triangle & \end{array}$

11

6+4

12-2

3. $\begin{array}{ccccc} \hexagon & \hexagon & \hexagon & \hexagon & \hexagon \\ & \hexagon & \hexagon & \hexagon & \\ \hexagon & & \hexagon & \hexagon & \hexagon \\ & \hexagon & \hexagon & \hexagon & \end{array}$

12-6

2+10

10

4.



7+1

8-1

2+5

5-3

6+1

8

2+4

6+2

8-0

2+6

4+3


LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 7

1. Dick has 3 

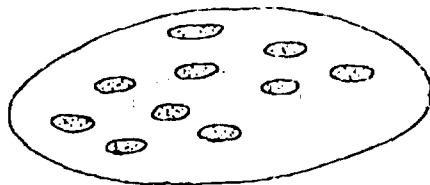
Sam has 5 

How many frogs do both boys have together? _____

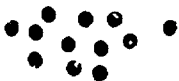
2. There were 10 cookies on the plate.

Jim ate 4 of them.

How many were left? _____



3. Joe had 12 marbles in his pocket.

He lost 5. 

How many were left? _____

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 8, 9

1. Ring the addends.

$$5 + 4 = 9$$

$$9 - 5 = 4$$

$$8 = 6 + 2$$

2. Draw a line under the sums.

$$3 + 2 = 5$$

$$6 = 4 + 2$$

$$7 - 5 = 2$$

3. Write the correct sign = , > or < in each \bigcirc .

$$4 \bigcirc 5 + 1$$

$$5 - 1 \bigcirc 5 - 4$$

$$4 + 0 \bigcirc 3 + 1$$

$$2 \div 1 \bigcirc 3$$

LEVEL B

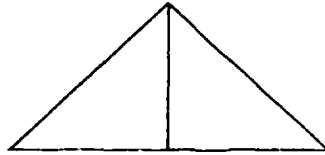
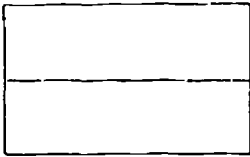
FRACTIONS

Skill 1, 2

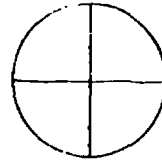
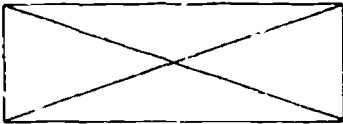
Name _____

Date _____

Shade one-half of each region.



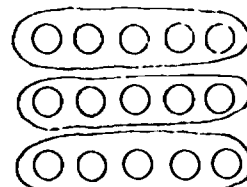
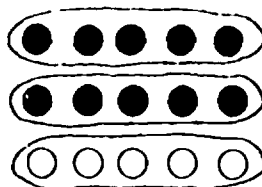
Shade one-fourth of each region.



Circle one-half of the hats.



Draw a line under the pictures that show one-fourth.



LEVEL B

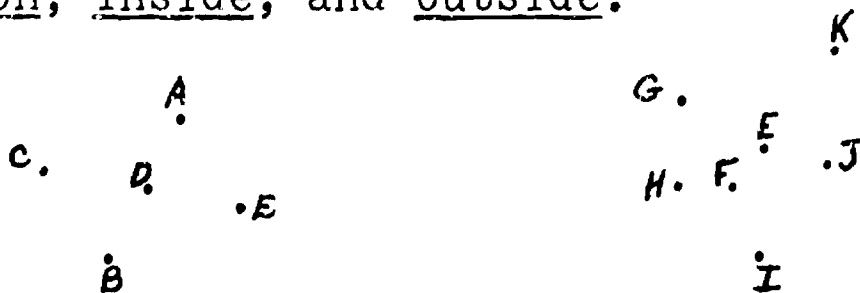
Name _____

NON-METRIC GEOMETRY

Date _____

Skill 1, 3

1. Draw closed curves with the points on, inside, and outside.

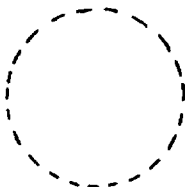


On - A, B, C
Inside - D
Outside - E

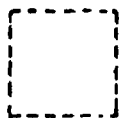
On - G, H, I, J
Inside - E, F
Outside - K

-
2. Complete each curve in blue.

Color the inside of the circle red.



Color the inside of the square yellow.



LEVEL B

NON-METRIC GEOMETRY

Skill 2

Name _____

Date _____

Match the word with the figure.

1. circle



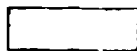
2. triangle



3. rectangle



4. square



Just for fun.

Color the triangle

green

Color the circle

yellow

Color the square

red

Color the rectangle

blue

LEVEL B

Name _____

METRIC GEOMETRY

Date _____

Skill 1

Measure each line segment.

Write the numeral in each .

A. _____

B. _____

A. _____

B. _____

A. _____

B. _____

LEVEL B

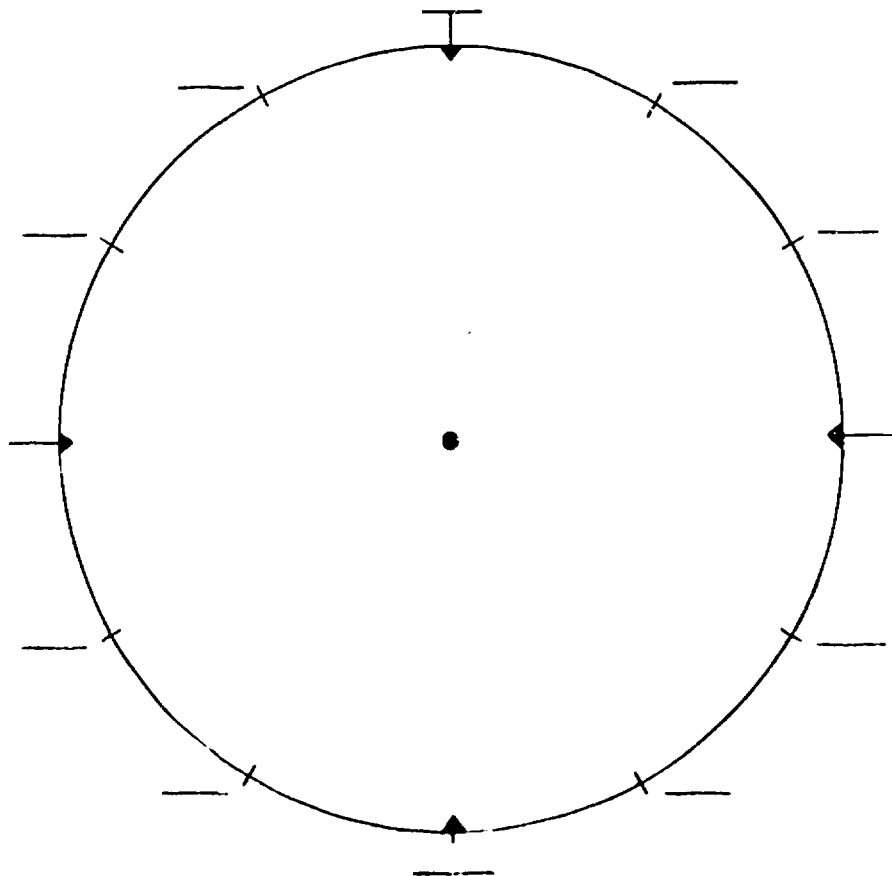
Name _____

TIME

Date _____

Skill 1

Write all the numerals on this clockface.



LEVEL B

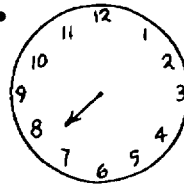
Name _____

TIME

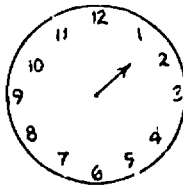
Date _____

Skill 2

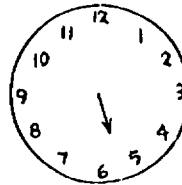
1. This clockface shows that it is past _____ o'clock and before _____ o'clock.



2. This clockface shows that it is past _____ o'clock and before _____ o'clock.



3. This clockface shows that it is past _____ o'clock and before _____ o'clock.



LEVEL B

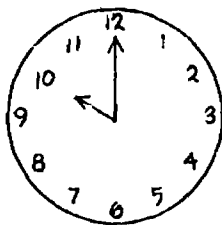
Name _____

TIME

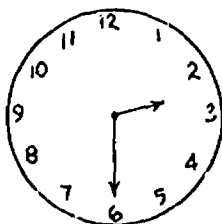
Date _____

Skill 3, 4

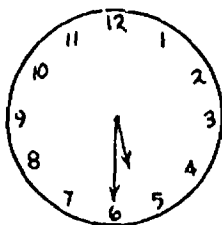
1. This clockface shows that it is _____ o'clock.



2. This clockface shows that it is half past _____ o'clock.



3. This clockface shows that it is half past _____ o'clock.



LEVEL B

Name: _____

MONEY

Date: _____

Skill 2

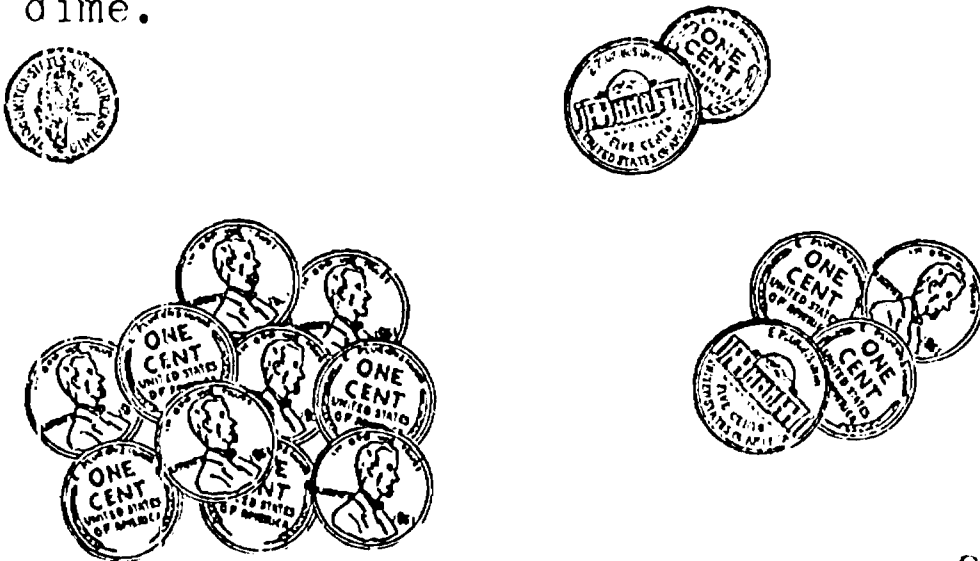
1. Circle the number of pennies that equals a nickel.



2. Circle the number of nickels that equals a dime.



3. Circle the set of coins that equals a dime.



LEVEL B

Name _____

MONEY

Date _____

Skill 1

1. Put an X on the picture of a nickel.



2. Put an X on the picture of a penny.



3. Put an X on the picture of a dime.



LEVEL B

Name _____

MCNEY

Date _____

Skill 3

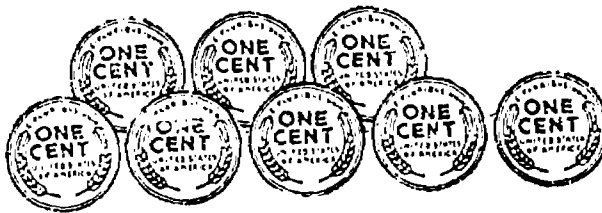
How many cents are there in these sets?

1.



_____¢

2.



_____¢

3.



_____¢

4. Circle the picture which shows how much the apple costs.



LEVEL B










Name _____

NUMERATION

Date _____

Skill 6, 8

1. Write the numeral in each .

| | | |
|---|---|--|
|  |  |  |
|  |  |  |
|  |  |  |
| <input type="text" value="7"/> | <input type="text" value="8"/> | <input type="text" value="9"/> |

2. Write the numerals from 72 to 45 backwards.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 | 64 | 63 |
| 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 |
| 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 |

LEVEL B

Name _____

NUMERATION

Date _____

Skill 7

1. Write numerals (1 - 100) forward.

| | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 |
| 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 |
| 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 |
| 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 |
| 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 |
| 100 | | | | | | | | | |

LEVEL B

Name _____

NUMERATION

Date _____

Skill 9

Write in the missing number.

AFTER

56, 57

28, 29

70, 71

32, 33

BEFORE

50, 51

62, 63

88, 89

14, 15

BETWEEN

65, 66, 67

27, 28, 29

44, 45, 46

96, 97, 98

BEFORE AND AFTER

85, 86, 87

81, 82, 83

41, 42, 43

46, 47, 48

LEVEL B

Name _____

NUMERATION

Date _____

Skill 10

1. Draw a circle around the largest number.

7 5 (9)

2. Draw a circle around the smallest number.

73 (37) 75

3. Put $>$ or $<$ in the circles.

87 $\textcircled{<}$ 88

99 $\textcircled{>}$ 8

49 $\textcircled{>}$ 45

42 $\textcircled{<}$ 71

35 $\textcircled{>}$ 30

18 $\textcircled{<}$ 34

91 $\textcircled{<}$ 93

9 $\textcircled{<}$ 10

0 $\textcircled{<}$ 2

5 $\textcircled{<}$ 7

8 $\textcircled{>}$ 2

1 $\textcircled{<}$ 9

LEVEL B

NUMERATION

Skill 11

Name _____

Date _____

Draw a ring around the numeral that means the same as the number word.

| | | | |
|-------|-------------|-------|-------------|
| Eight | 3 ⑧ 9 | Two | 6 ② 3 |
| Four | 6 5 ④ | Six | ⑥ 9 7 |
| Three | 1 9 ③ | Ten | 4 ⑩ 3 |
| Nine | 5 ⑨ 3 | Five | 2 ⑤ 8 |
| One | 8 7 ① | Seven | 6 3 ⑦ |

LEVEL B

Name _____

NUMERATION

Date _____

Skill 12

1. Put an X on the fifth umbrella.



2. Put an X on the seventh boy.



3. Put an X on the third box.



4. Put an X on the eleventh apple.



5. Put an X on the twelfth circle.



LEVEL B

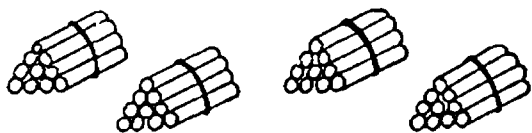
Name _____

NUMERATION

Date _____

Skill 13

1. Write the number of tens and ones in these pictures.



1. 4 tens

0 ones

2.



2. 4 tens

0 ones

3.



3. 2 tens

5 ones

4.



4. 3 tens

0 ones

LEVEL B

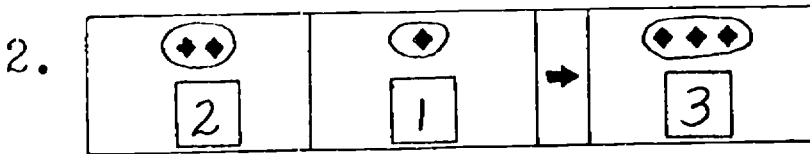
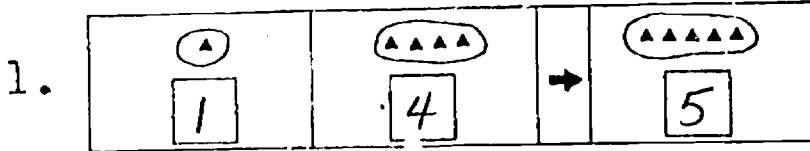
ADDITION AND SUBTRACTION

Name _____



Date _____

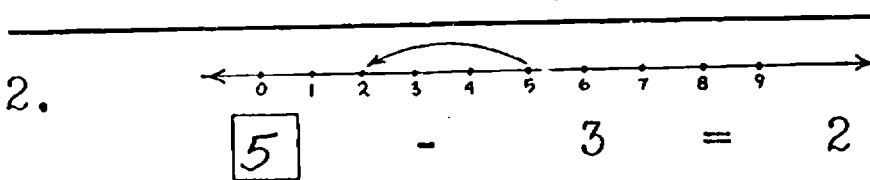
Skill 1, 2

Write the numeral in each .

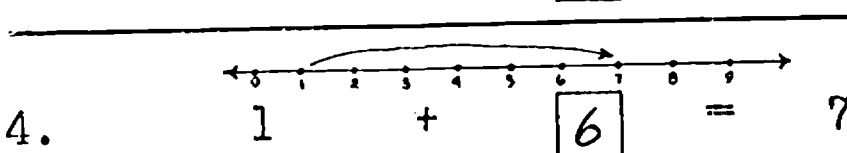


Write the numeral in the .

1.  4 +  1 = 5



3.  9 -  6 =  3



LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 1 of 5 pages)

Timed: 5 minutes

ADD.

$$\begin{array}{r} 7 \\ +1 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 2 \\ +9 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 2 \\ +5 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 2 \\ +8 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 4 \\ +4 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 4 \\ +1 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 3 \\ +1 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 1 \\ +8 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 6 \\ +1 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 5 \\ +4 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 3 \\ +3 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 1 \\ +1 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 9 \\ +2 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 1 \\ +3 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 1 \\ +6 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 1 \\ +7 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 2 \\ +1 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 5 \\ +5 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 2 \\ +2 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 7 \\ +2 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 1 \\ +9 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 8 \\ +1 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 6 \\ +2 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 3 \\ +6 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 2 \\ +4 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 4 \\ +5 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 8 \\ +3 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 8 \\ +2 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 6 \\ +4 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 1 \\ +4 \\ \hline 5 \end{array}$$

LEVEL B

ADDITION AND SUBTRACTION

Skill 3 (Page ? of 5 pages)

Timed: 5 minutes

No. _____

Date _____

ADD.

| | | | | | |
|---|---|--|--|--|--|
| $\begin{array}{r} 9 \\ +1 \\ \hline 10 \end{array}$ | $\begin{array}{r} 6 \\ +6 \\ \hline 12 \end{array}$ | $\begin{array}{r} 3 \\ +2 \\ \hline 5 \end{array}$ | $\begin{array}{r} 4 \\ +3 \\ \hline 7 \end{array}$ | $\begin{array}{r} 1 \\ +5 \\ \hline 6 \end{array}$ | $\begin{array}{r} 2 \\ +3 \\ \hline 5 \end{array}$ |
|---|---|--|--|--|--|

| | | | | | |
|--|--|---|--|---|---|
| $\begin{array}{r} 3 \\ +5 \\ \hline 8 \end{array}$ | $\begin{array}{r} 6 \\ +3 \\ \hline 9 \end{array}$ | $\begin{array}{r} 7 \\ +3 \\ \hline 10 \end{array}$ | $\begin{array}{r} 2 \\ +7 \\ \hline 9 \end{array}$ | $\begin{array}{r} 8 \\ +4 \\ \hline 12 \end{array}$ | $\begin{array}{r} 5 \\ +6 \\ \hline 11 \end{array}$ |
|--|--|---|--|---|---|

| | | | | | |
|--|--|--|--|--|---|
| $\begin{array}{r} 5 \\ +2 \\ \hline 7 \end{array}$ | $\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$ | $\begin{array}{r} 1 \\ +2 \\ \hline 3 \end{array}$ | $\begin{array}{r} 5 \\ +3 \\ \hline 8 \end{array}$ | $\begin{array}{r} 5 \\ +1 \\ \hline 6 \end{array}$ | $\begin{array}{r} 5 \\ +7 \\ \hline 12 \end{array}$ |
|--|--|--|--|--|---|

| | | | | | |
|---|---|---|---|---|---|
| $\begin{array}{r} 4 \\ +7 \\ \hline 11 \end{array}$ | $\begin{array}{r} 6 \\ +5 \\ \hline 11 \end{array}$ | $\begin{array}{r} 4 \\ +6 \\ \hline 10 \end{array}$ | $\begin{array}{r} 7 \\ +4 \\ \hline 11 \end{array}$ | $\begin{array}{r} 3 \\ +7 \\ \hline 10 \end{array}$ | $\begin{array}{r} 3 \\ +9 \\ \hline 12 \end{array}$ |
|---|---|---|---|---|---|

| | | | | | |
|---|---|--|---|---|--|
| $\begin{array}{r} 3 \\ +8 \\ \hline 11 \end{array}$ | $\begin{array}{r} 7 \\ +5 \\ \hline 12 \end{array}$ | $\begin{array}{r} 2 \\ +6 \\ \hline 8 \end{array}$ | $\begin{array}{r} 9 \\ +3 \\ \hline 12 \end{array}$ | $\begin{array}{r} 4 \\ +8 \\ \hline 12 \end{array}$ | $\begin{array}{r} 3 \\ +4 \\ \hline 7 \end{array}$ |
|---|---|--|---|---|--|

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 3 of 5 pages)

Timed: 5 minutes

Subtract.

$$\begin{array}{r} 8 \\ -1 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 11 \\ -2 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 10 \\ -2 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 5 \\ -1 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 4 \\ -1 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 9 \\ -1 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 7 \\ -1 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 9 \\ -4 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 2 \\ -1 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 11 \\ -9 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 4 \\ -3 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 7 \\ -6 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 8 \\ -7 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 3 \\ -1 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 4 \\ -2 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 9 \\ -7 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 10 \\ -1 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 9 \\ -8 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 8 \\ -2 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 9 \\ -3 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 6 \\ -4 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 9 \\ -5 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 11 \\ -3 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 10 \\ -8 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 5 \\ -4 \\ \hline 1 \end{array}$$

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (Page 4 of 5 pages)

Timed: 5 minutes

Subtract.

$$\begin{array}{r} 10 \\ -9 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 12 \\ -6 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 5 \\ -2 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 7 \\ -3 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 6 \\ -1 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 5 \\ -3 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 9 \\ -6 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 10 \\ -3 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 9 \\ -2 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 12 \\ -4 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 11 \\ -5 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 7 \\ -5 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 3 \\ -2 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 8 \\ -5 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 6 \\ -5 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 12 \\ -5 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 11 \\ -4 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 10 \\ -6 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 11 \\ -7 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 12 \\ -3 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 11 \\ -8 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 12 \\ -7 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 8 \\ -6 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 12 \\ -9 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 12 \\ -8 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 7 \\ -4 \\ \hline 3 \end{array}$$

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3 (5 of 5 pages)

Find the sum or difference.

$$\begin{array}{r} 8 \\ - 5 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 6 \\ + 4 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 7 \\ - 0 \\ \hline 7 \end{array}$$

$$\begin{array}{r} 2 \\ + 7 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline 6 \end{array}$$

$$8 + 7 = 15$$

$$9 - 2 = 7$$

$$4 + 3 = 7$$

$$10 - 1 = 9$$

$$11 + 5 = 16$$

LEVEL B

ADDITION AND SUBTRACTION

Skill 4, 5

Name _____

Date _____

Write the numeral in each .

$$2 + \boxed{4} = 6$$

$$7 + 3 = \boxed{10}$$

$$4 + 2 = \boxed{6}$$

$$3 + \boxed{7} = 10$$

$$\boxed{6} + 2 = 8$$

$$0 + \boxed{12} = 12$$

$$6 + \boxed{2} = 8$$

$$\boxed{12} + 0 = 12$$

$$5 + \boxed{4} = 9$$

$$\boxed{4} + 5 = 9$$

$$4 + \boxed{3} = 7$$

$$1 + 6 = \boxed{7}$$

$$\boxed{4} + 3 = 7$$

$$6 + \boxed{1} = 7$$

$$5 + \boxed{2} = 7$$

$$\boxed{7} - 3 = 4$$

$$\boxed{5} + 2 = 7$$

$$7 - 4 = \boxed{3}$$

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 6

Circle all numbers which are names for how many are in the sets.

1. ○ ○ ○ ○ ○ ○ ○

10-3

6

4+3

2. $\begin{array}{cccc} \triangle & \triangle & \triangle & \\ \triangle & \triangle & \triangle & \triangle \\ \triangle & \triangle & \triangle & \end{array}$

11

6+4

12-2

3. $\begin{array}{ccccc} \hexagon & \hexagon & \hexagon & \hexagon & \hexagon \\ \hexagon & \hexagon & \hexagon & \hexagon & \hexagon \\ \hexagon & \hexagon & \hexagon & \hexagon & \hexagon \end{array}$

12-6

2+10

10

4.

$\begin{array}{c} \bigcirc \\ \bigcirc \end{array}$

7+1

8-1

2+5

5-3

6+1

8

2+4

6+2

8-0

2+6

4+3

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 7

1. Dick has 3



Sam has 5



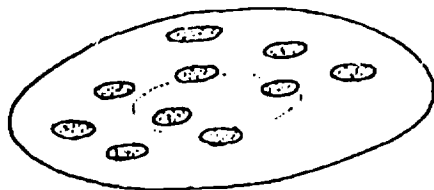
How many frogs do both boys have together? 8

2. There were 10 cookies on the plate.

Jim ate 4 of them.

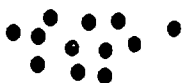
How many were left?

6



3. Joe had 12 marbles in his pocket.

He lost 5.



How many were left?

7

LEVEL B

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 8, 9

1. Ring the addends.

$$\textcircled{5} + \textcircled{4} = 9$$

$$9 - 5 = 4$$

$$8 = \textcircled{6} + \textcircled{2}$$

2. Draw a line under the sums.

$$3 + 2 = \underline{5}$$

$$\underline{6} = 4 + 2$$

$$7 - 5 = 2$$

3. Write the correct sign = , > or < in each \bigcirc .

$$4 \quad \textcircled{<} \quad 5 + 1$$

$$5 - 1 \quad \textcircled{>} \quad 5 - 4$$

$$4 + 0 \quad \textcircled{=} \quad 3 + 1$$

$$2 + 1 \quad \textcircled{=} \quad 3$$

LEVEL B

Name _____

FRACTIONS

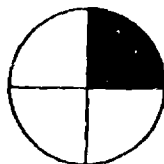
Date _____

Skill 1, 2

Shade one-half of each region.



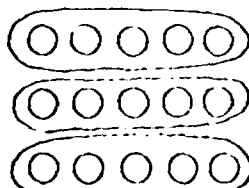
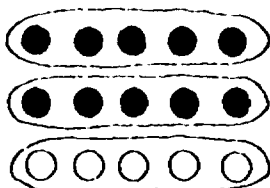
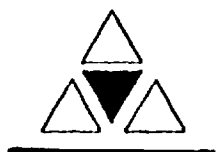
Shade one-fourth of each region.



Circle one-half of the hats.



Draw a line under the pictures that show one-fourth.



LEVEL B

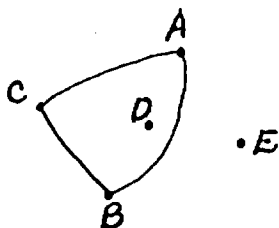
NON-METRIC GEOMETRY

Skill 1, 3

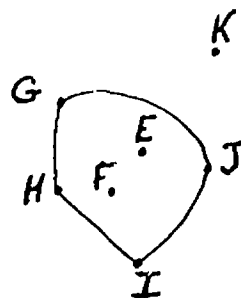
Name _____

Date _____

1. Draw closed curves with the points on, inside, and outside.



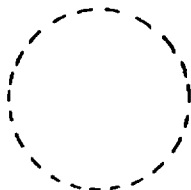
On - A, B, C
Inside - D
Outside - E



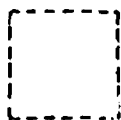
On - G, H, I, J
Inside - E, F
Outside - K

-
2. Complete each curve in blue.

Color the inside of the circle red.



Color the inside of the square yellow



LEVEL B

NON-METRIC GEOMETRY


Skill 2


Name _____

Date _____

Match the word with the figure.

1. circle 

2. triangle 

3. rectangle 

4. square 

Just for fun.

Color the triangle green

Color the circle yellow

Color the square red

Color the rectangle blue

LEVEL B

METRIC GEOMETRY

Skill 1

Name _____

Date _____

Measure each line segment.

Write the numeral in each .

A. _____

B. _____

A. _____

B. _____

A. _____

B. _____

LEVEL B

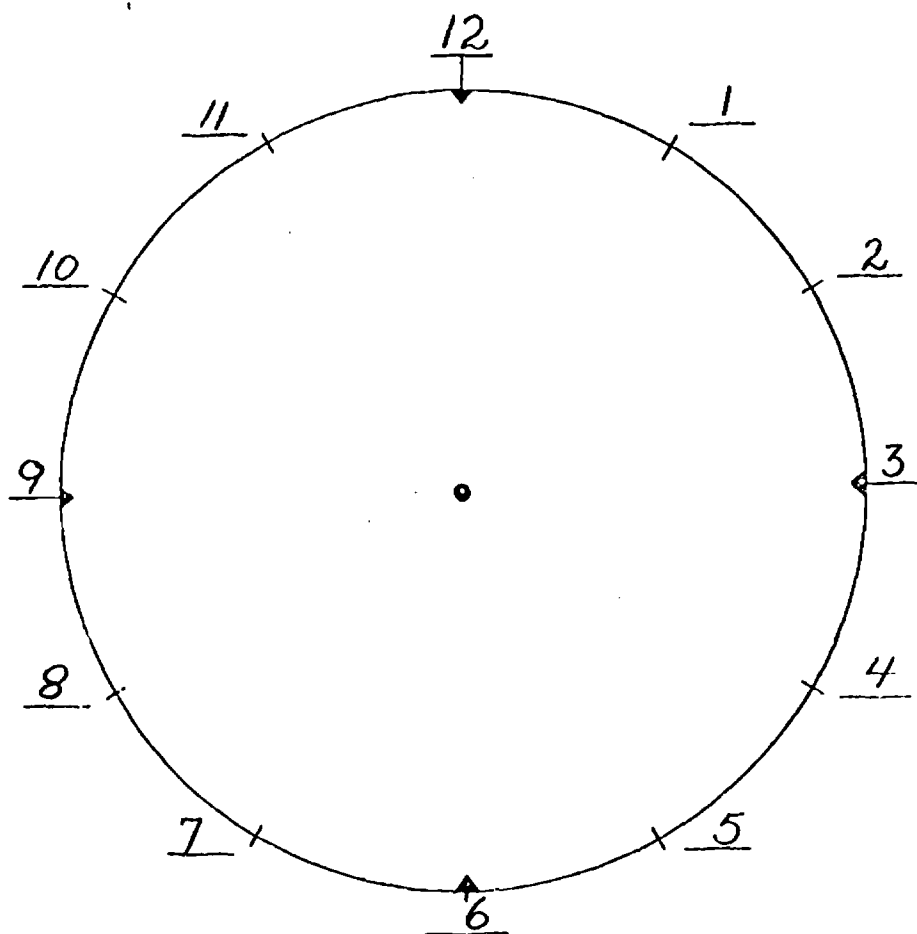
TIME

skill 1

Name _____

Date _____

Write all the numerals on this clockface.



LEVEL B

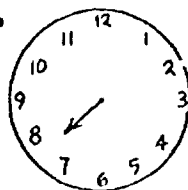
Name _____

TIME

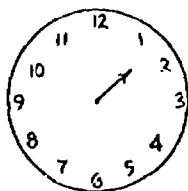
Date _____

Skill 2

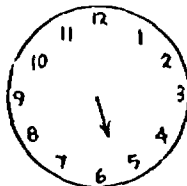
1. This clockface shows that it is
past 7 o'clock and before
8 o'clock.



2. This clockface shows that it is
past 1 o'clock and before
2 o'clock.



3. This clockface shows that it is
past 5 o'clock and before
6 o'clock.



LEVEL B

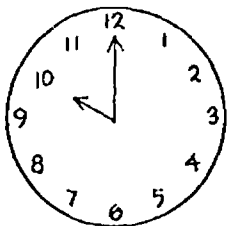
Name _____

TIME

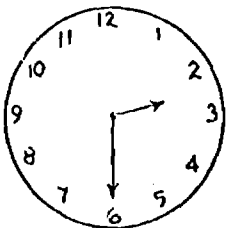
Date _____

Skill 3, 4

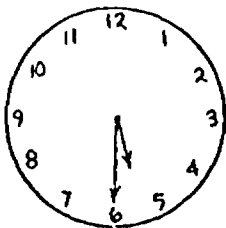
1. This clockface shows that it is 10 o'clock.



2. This clockface shows that it is half past 2 o'clock.



3. This clockface shows that it is half past 5 o'clock.



LEVEL B

Name _____

MONEY

Date _____

Skill 1

1. Put an X on the picture of a nickel.



2. Put an X on the picture of a penny.



3. Put an X on the picture of a dime.



LEVEL B

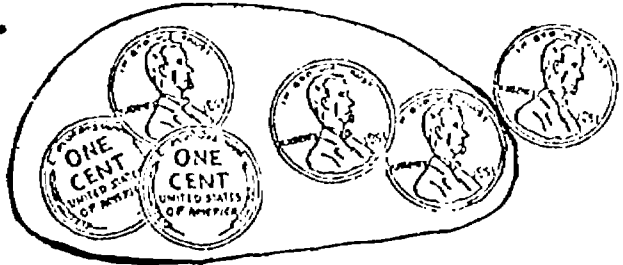
MONEY

Skill 2

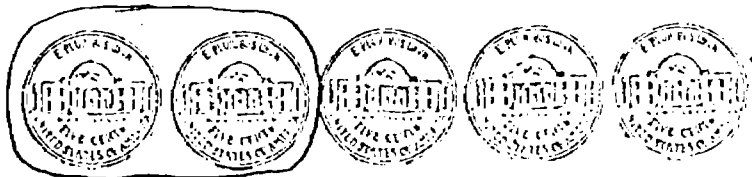
Name _____

Date _____

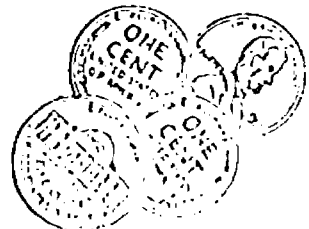
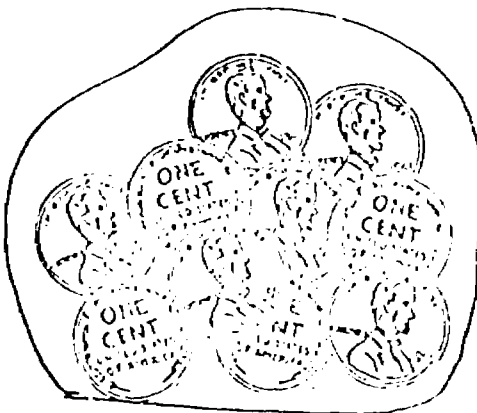
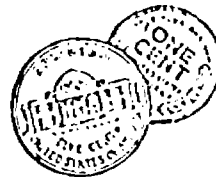
1. Circle the number of pennies that equals a nickel.



2. Circle the number of nickels that equals a dime.



3. Circle the set of coins that equals a dime.



LEVEL B

Name _____

MONEY

Date _____

Skill 3

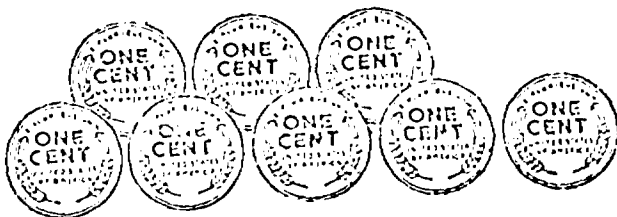
How many cents are there in these sets?

1.



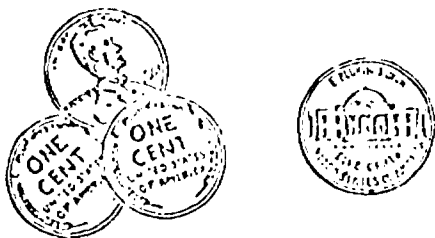
9 c

2.



8 c

3.



8 c

4. Circle the picture which shows how much the apple costs.



MATHEMATICS CONTINUUM

LEVEL C

BOOK 2

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and Continuum mastery tests should be used to provide sufficient evidence to check the 70 - 100% (mastery level) for each skill.

It is suggested that Fractions be taught before Geometry topics are introduced since some activities in the Geometry sections may involve knowledge of fractional parts.

LEVEL C

NUMERATION



Review of Level B Skills

- B Numeration 1
- B Numeration 2
- B Numeration 10
- B Numeration 11

1. Reads the words for ordinal numbers through twelfth. Responds to oral and written questions regarding these positions in an order.
2. Reads and writes numbers to 999 in sequential forward or reverse order from any starting point, or supplies the number which is one more, one less, or in-between two given numbers.
3. Skip counts by 10's to 200.
4. Skip counts by 5's to 200.
5. Skip counts by 2's to 200.
6. Identifies the digit which is in the units, tens, or hundreds place as requested for numbers to 999. States the place value of a particular digit. Use scrambled order occasionally. Mastery not expected until near end of year.
Teacher note: Student should become familiar with the term digit.

Example

Numeration

M A T H

Write T in the third ☐.
Write A in the second ☐.
Write H in the fourth ☐.
Write M in the first ☐.

Name the number between these numbers:

31 and 33 32

Fill in the missing numerals:
80, 90, 100, 110, 120

Fill in the missing numerals:
25, 30, 35, 40, 45, 50

Fill in the missing numerals:
148, 150, 152, 154, 156

What is the place value of the underlined digit in the following numerals?

58 units
136 hundreds

Textual Resources

Numeration

Review

HM Book 2, pp. 1-3
HM Book 2, p. 4
HM Book 2, pp. 7-12
HM Book 2, pp. 5, 6

1. HM Book 2, pp. 13, 14

2. HM Book 2, pp. 99, 100

3. HM Book 2, In-Depth pp.
263, 264

4.

5.

6.

Related Resources

Notes

HM Visuals 2 (1)

LEVEL C

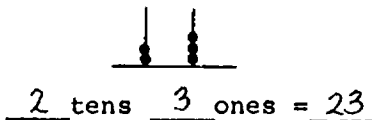
Numeration

7. Writes the cardinal numeral for structured groups up to 999 using expanded notation.

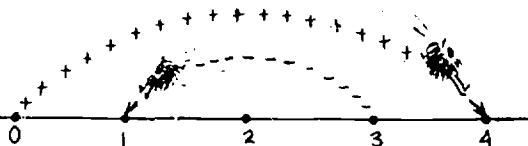
Example

Numeration

What number does the abacus show?



ADDITION AND SUBTRACTION



Review of Level B Skills

B Add. & Sub. 2

B Add. & Sub. 3

B Add. & Sub. 5

B Add. & Sub. 6

Addition and Subtraction

1. Finds the sums and differences for addition and subtraction fact statements. Problems written in both horizontal and vertical form. Timed Mastery Test. Sums to 18.
Teacher note: Reinforce the commutative principle for addition and the inverse operation of addition and subtraction.

Textual ResourcesRelated ResourcesNotesNumeration

- | | | |
|--|-------------------------|--|
| 7. HM Book Book 2, pp. 93-98, 265,266 | HM Visuals 2 (9, 24) | |
|--|-------------------------|--|

Addition and SubtractionReview

- | | | |
|---|---|--|
| HM Book 2, pp. 15-24, 53-56, 109 | HM Visuals 2 (4, 5, 10) | |
| HM Book 2, pp. 29, 30, 61, 62, 78 | HM Masters 2 (1, 2, 18) | |
| HM Book 2, pp. 31, 43, 49, 50 | HM Masters 2 (12) | |
| HM Book 2, pp. 25, 26, 39-42, 45-48, 60, 103-106 | HM Masters 2 (3, 10, 11) | |
| | HM Masters 2 (5-9, 15-17) | |
| 1. HM Book 2, pp. 90, 111, 113, 114, 116, 117, 120, 121, 123, 124, 127, 128, 130, 132, 133, 135, 137, 142 | HM Masters 2 (19, 21, 23, 25, 30, 33, 34) | |

LEVEL C

Addition and Subtraction

2. Adds three single digit numbers in different ways to illustrate the associative principle for addition. Puts in parentheses to show which numbers are added first. Also uses associative principle to regroup or bridge 10's.
3. Fills in the missing digit, operation symbol, or relation symbol to make a number sentence true.
4. Adds a number less than 10 to a number greater than 10 without renaming.
5. Does two and three-place addition without any renaming.
6. Subtracts a number less than 10 from a number greater than 10 without renaming.
7. Does two and three-place subtraction without any renaming.
8. Adds a number less than 10 to a number greater than 10 with renaming of ones as tens.
9. Subtracts numbers less than 10 from numbers greater than 10 with renaming of 1 ten as 10 ones.

Example

Addition and Subtraction

$$\begin{array}{r} \boxed{1} \\ \boxed{1} \\ + 3 \\ \hline \end{array} \rightarrow \begin{array}{r} \boxed{2} \\ 3 \\ \boxed{5} \end{array}$$

$$\begin{aligned} 9 + 6 &= 9 + (1 + 5) \\ &= (9 + \boxed{1}) + 5 \\ &= \boxed{10} + \boxed{5} = \boxed{15} \end{aligned}$$

$$\begin{aligned} 4 + \boxed{2} &= 6 & 5 - 4 &\textcircled{=} 1 \\ 6 \textcircled{+} 2 &= 8 & 5 + 1 &\textcircled{<} 8 \end{aligned}$$

$$34 + 4 = \boxed{38} \quad + \frac{25}{29}$$

$$\begin{array}{r} 54 \\ + 24 \\ \hline 78 \end{array} \quad \begin{array}{r} 346 \\ + 233 \\ \hline 579 \end{array}$$

$$27 - 3 = \boxed{24} \quad \begin{array}{r} 27 \\ - 3 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 56 \\ - 24 \\ \hline 32 \end{array} \quad \begin{array}{r} 937 \\ - 512 \\ \hline 425 \end{array}$$

$$48 + 5 = \boxed{53} \quad \begin{array}{r} 48 \\ + 5 \\ \hline 53 \end{array}$$

$$32 - 4 = \boxed{28} \quad \begin{array}{r} 32 \\ - 4 \\ \hline 28 \end{array}$$

Textual ResourcesAddition and Subtraction

2. HM Book 2, pp. 33-38,
44, 51, 39, 107, 108,
115, 118, 125, 126,
129, 134, 136, 139,
140
3. HM Book 2, pp. 27, 28,
52, 59, 77, 112, 131,
138, 198
4. HM Book 2, pp. 143-146
5. HM Book 2, pp. 153, 154,
157-168, 177, 267, 268,
271, 272
6. HM Book 2, pp. 147-150
7. HM Book 2, pp. 155,
169-176, 269, 270, 273,
274
8. HM Book 2, pp. 178-182,
201
9. HM Book 2, pp. 249-252

Related Resources

HM Visuals 2 (3, 10)
HM Masters 2 (7, 20,
24, 26-29, 31)

HM Visuals 2 (2)

HM Visuals 2 (11)
HM Masters 2 (35)

HM Visuals 2 (13)
HM Masters 2 (38,
54)

HM Visuals 2 (12)
HM Masters 2 (36)

HM Visuals 2 (14)
HM Masters 2 (39,
55)

HM Visuals 2 (17)
HM Masters 2 (40)

HM Masters 2 (48)

Notes

LEVEL C

Addition and Subtraction

10. Identifies number patterns in addition and subtraction.
11. Does two-place addition with renaming of ones as tens.
No mastery test until Level D.
12. Does two-place subtraction with renaming of 1 ten as 10 ones.
No mastery test until Level D.
13. Mixed Practice.
14. In-Depth.

Example

Addition and Subtraction

| | | | | | | |
|---|---|---|----|----|---|----|
| + | 2 | 5 | 6 | 7 | 4 | 8 |
| 4 | 6 | 9 | 10 | 11 | 8 | 12 |
| 3 | 5 | 8 | 9 | 10 | 7 | 11 |

$$\begin{array}{r} 37 \\ +57 \\ \hline 94 \end{array}$$

$$\begin{array}{r} 53 \\ -28 \\ \hline 25 \end{array}$$

MULTIPLICATION



1. In-Depth.

Multiplication

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|---|--------------|
| <u>Addition and Subtraction</u> | | |
| 10. HM Book 2, pp. 57, 58, 64, 110, 141, 213-216, 233, 234, 292 | HM Masters 2 (32, 45) | |
| 11. HM Book 2, pp. 202-210 | HM Visuals 2 (17) HM Masters 2 (41-44) | |
| 12. HM Book 2, pp. 253-260, 262 | HM Visuals 2 (33) HM Masters 2 (49-53) | |
| 13. HM Book 2, pp. 32, 101, 102, 119, 151, 152, 156, 183, 184, 197, 199, 200, 261, 275, 276, 279 | HM Masters 2 (22, 37) | |
| 14. HM Book 2, pp. 63, 122, 280 | | |

Multiplication

| | |
|------------------------------------|--|
| 1. HM Book 2, pp. 281-291, 293-318 | HM Visuals 2 (25-28) HM Masters 2 (56-60) |
|------------------------------------|--|

LEVEL C

FRACTIONS



Example

Fractions

- | | |
|---|--|
| <p>1. Divides a set of identical objects into parts for the fractions $1/2$, $1/3$, $1/4$. States that these terms mean "one of ____ equal parts."</p> <p>2. Divides an object into halves, thirds, or fourths and/or responds to directions to shade a portion of the region of an object. Describes a fractional part as "one of ____ equal parts."</p> <p>*3. Rejects figures which are divided into 2, 3, or 4 parts which are clearly unequal.</p> <p>4. Writes "$1/2$, $1/3$, $1/4$," as names for fractional numbers and responds to the terms $1/2$ (one-half), $1/3$ (one-third), $1/4$ (one-fourth) when used in directions.</p> <p>5. Identifies (orally and in writing) $3/4$ (three-fourths), and $2/3$ (two-thirds) of an object or set of objects. Responds to these terms when used in directions.</p> | <p>"Ring $1/3$ of the objects in each set."</p> <p>"One-third means one of ____ equal parts."</p> <p>"Color one-fourth of each region."</p> <p>"Mark the figures which are <u>not</u> clearly equal."</p> <p>"Write '$1/2$' under the regions that are half shaded."</p> <p>"Color $3/4$ of the objects in each set."</p> <p>"Write '$3/4$' under the regions that are three-fourths colored."</p> |
|---|--|

Textual ResourcesRelated ResourcesNotesFractions

- | | | |
|--|---|--|
| 1. HM Book 2, pp. 79, 80, 231, 232, 237, 238 | HM Visuals 2 (20) | |
| 2. HM Book 2, pp. 229, 235 | HM Visuals 2 (19) | |
| 3. HM Book 2, pp. 230, 236 | HM Visuals 2 (19) | |
| 4. HM Book 2, pp. 230, 236 | HM Visuals 2 (19) | |
| 5. HM Book 2, pp. 239, 240, 243-246 | HM Visuals 2 (19, 20-22) HM Masters 2 (46, 47) | |

LEVEL C

NON-METRIC GEOMETRY



Review of Level B Skills

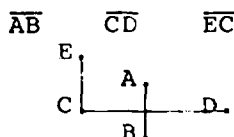
B Non-Metric Geometry 1
B Non-Metric Geometry 3

1. Identifies and joins points in a line by letters and names line segments by their lettered points. Reads "AB" as "line segment AB".
2. Identifies simple and not simple curves - both closed and open.
3. Identifies number of sides and corners (vertices) in a triangle, rectangle and a square.
4. In-Depth.

Example

Non-Metric Geometry

Draw the line segments.

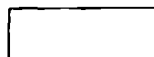


Write yes or no.

Is the curve simple? yes

Is the curve closed? no

How many sides does the curve have? 4



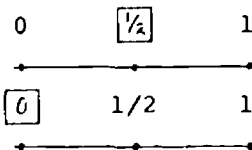
METRIC GEOMETRY



1. Compares line segments with a given unit of length and a given half unit of length.
Teacher note: Review Level C Non-Metric Geometry Skill 1 if necessary.

Metric Geometry

Write 0, $1/2$, or 1 in each ☐.



Textual ResourcesRelated ResourcesNotesNon-Metric GeometryReview

HM Book 2, pp. 226, 227
HM Book 2, pp. 225, 228

HM Visuals 2 (18)

1. HM Book 2, pp. 65-68

HM Visuals 2 (6)

2. HM Book 2, pp. 217-220

3. HM Book 2, pp. 221-223

4. HM Book 2, p. 224

Metric Geometry

1. HM Book 2, pp. 69, 70,
81-83

HM Visuals 2 (8)

LEVEL C

Metric Geometry

2. Uses inches and half-inches as a standard unit of measurement.
3. Utilizes the information that there are 12 inches in a foot (foot ruler) to solve measurement problems.
4. States and shows relationships between cups, pints, quarts, half-gallons and gallons.

Example

Metric Geometry

R. _____ S

The length of \overline{RS} is 2 inches.

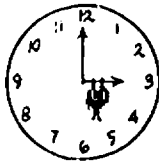
$$m(\overline{RS}) = \underline{2}$$

1 foot = 12 inches

24 inches = 2 feet

To make 1 quart we need
2 pints or 4 cups.

TIME



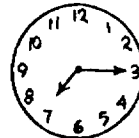
1. Tells time in whole, half, and quarter hour intervals.

2. Reads time by five minute intervals.
No mastery test until Level D.

Time

"What time does the clock show?"

quarter past 7



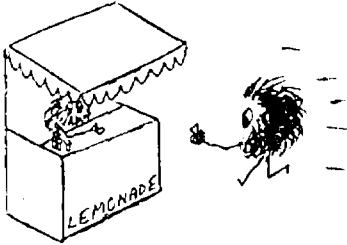
| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--------------------------|--------------|
| <u>Metric Geometry</u> | | |
| 2. HM Book 2, pp. 71-74, 84 | HM Visuals 2 (7, 8) | |
| 3. HM Book 2, pp. 75, 76 teacher's page 105 | | |
| 4. HM Book 2, pp. 87, 88, 241 | HM Masters 2 (14) | |

Time

| | |
|-------------------------------|---|
| 1. HM Book 2, pp. 85, 86, 242 | Commercial Teach-A-Time Clock Clock dial, large Student Practice Clock HM Masters 2 (13) |
|-------------------------------|---|

LEVEL C

MONEY



Example

Money

1. Matches pennies, nickels, dimes, quarters, and half-dollars with their numerical values or with values in other coins.

"How many pennies are in one dime? How many nickels are in a quarter?"

2. Finds the value of small collections of coins. Chooses or lists a set of coins that total a given value.

"Find the value of this collection of coins."

3. Compares sets of coins to identify the greater value.

"Mark the set of coins that has the greater value."

- *4. Identifies proper change after making a purchase.

- *5. Solves one-step verbal problems involving adding and subtracting values of money.

Textual ResourcesMoney

1. HM Book 2, pp. 185,
186, 189, 191
2. HM Book 2, pp. 187, 188,
190, 192, 196, 211, 277
In-Depth p. 212
3. HM Book 2, pp. 193, 194
4. HM Book 2, p. 195
5. HM Book 2, pp. 278
teacher's page 229

Related Resources

HM Visuals 2 (15)

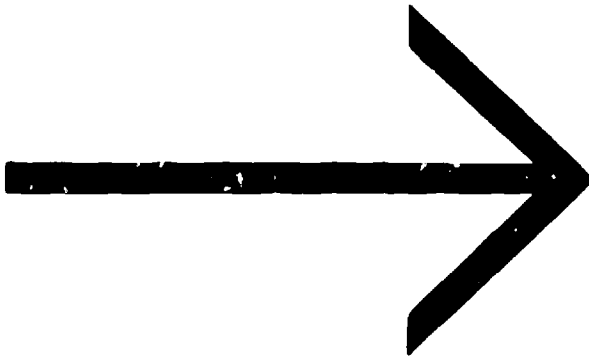
HM Visuals 2 (15,
16)

HM Visuals 2 (15)

HM Visuals 2 (16)

Notes

LEVEL C
TESTS
and
ANSWER KEYS



LEVEL C

Name _____

NUMERATION

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Skill 1

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

Write M in the third

| |
|--|
| |
|--|

 .

Write L in the seventh

| |
|--|
| |
|--|

 .

Write E in the fourth

| |
|--|
| |
|--|

 .

Write N in the first

| |
|--|
| |
|--|

 .

Write A in the sixth

| |
|--|
| |
|--|

 .

Write U in the second

| |
|--|
| |
|--|

 .

Write R in the fifth

| |
|--|
| |
|--|

 .

LEVEL C

Name _____

NUMERATION

Date _____

Skill 2, 3

Fill in the missing numerals.

- 1) 200, _____, _____, 197, 196, _____
- 2) 76, _____, _____, 79, 80, _____
- 3) _____, 55, 56, _____, 58, _____
- 4) 126, _____, 128, 129, _____, 131
- 5) 43, _____, 41, 40, _____, _____
- 6) 57, 47, _____, _____, _____, 7
- 7) _____, 135, 145, _____, _____, 175
- 8) 111, 121, _____, _____, 151, _____
- 9) 178, 168, _____, _____, 138, _____
- 10) _____, 87, 77, _____, _____, 47

LEVEL C

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Skill 4, 5

Fill in the missing numeral.

1) 185, _____, 175, _____, _____, _____

2) 171, 176, _____, _____, _____, 196

3) 133, 138, _____, 148, 153, _____

4) 94, _____, 84, 79, _____, _____

5) 62, 67, _____, _____, _____, 87

6) 13, 15, _____, _____, _____, 23

7) 97, 99, _____, _____, 105, 107

8) 51, 53, _____, _____, _____, 61

9) 139, 141, _____, _____, _____, 149

10) 76, 78, _____, _____, 84, _____

LEVEL C

Name _____

NUMERATION

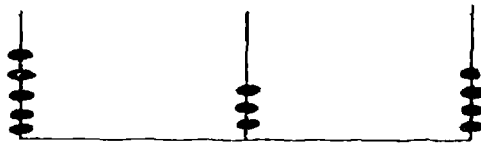
Date _____

Skill 6, 7

What is the place value of the underlined digit in the following numbers?

1. 58 _____
2. 174 _____
3. 190 _____

1. What digit is in the tens place in this number? 171 _____
2. What digit is in the hundreds place in this number? 186 _____
3. What digit is in the ones place in this number? 149 _____



_____ hundreds _____ tens _____ ones

$$168 = \underline{\quad} + 60 + 8$$

$$750 = \underline{\quad} + \underline{\quad}$$

$$624 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$329 = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

LEVEL C

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Skill 1 (Page 1 of 3 pages)

Name the sum or missing addend.

$9 + 6 = \underline{\quad}$

$11 - 8 = \underline{\quad}$

$5 + 6 = \underline{\quad}$

$8 + 7 = \underline{\quad}$

$14 - 6 = \underline{\quad}$

$14 - 8 = \underline{\quad}$

$8 - 4 = \underline{\quad}$

$7 + 9 = \underline{\quad}$

$16 - 7 = \underline{\quad}$

$$\begin{array}{r} 7 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ - 4 \\ \hline \end{array}$$

$10 + 2 = \underline{\quad}$

$6 + 7 = \underline{\quad}$

$8 + 7 = \underline{\quad}$

$2 + 10 = \underline{\quad}$

$7 + 6 = \underline{\quad}$

$7 + 8 = \underline{\quad}$

$18 - 9 = \underline{\quad}$

$16 - 5 = \underline{\quad}$

$17 - 4 = \underline{\quad}$

$9 + 9 = \underline{\quad}$

$11 + 5 = \underline{\quad}$

$13 + 4 = \underline{\quad}$

Name _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

Date _____

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1 (Page 3 of 3 pages)

Timed: 10 minutes

Subtract

| | | | | | | | | | |
|---|--|--|--|--|---|---|---|--|---|
| $\begin{array}{r} 12 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -5 \\ \hline \end{array}$ |
|---|--|--|--|--|---|---|---|--|---|

| | | | | | | | | | |
|---|---|---|--|---|---|---|---|--|--|
| $\begin{array}{r} 12 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -10 \\ \hline \end{array}$ |
|---|---|---|--|---|---|---|---|--|--|

| | | | | | | | | | |
|---|--|--|--|--|---|---|--|---|--|
| $\begin{array}{r} 10 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -5 \\ \hline \end{array}$ |
|---|--|--|--|--|---|---|--|---|--|

| | | | | | | | | | |
|--|---|---|---|---|---|---|--|--|---|
| $\begin{array}{r} 5 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -8 \\ \hline \end{array}$ |
|--|---|---|---|---|---|---|--|--|---|

| | | | | | | | | | |
|--|--|--|---|---|---|---|--|--|--|
| $\begin{array}{r} 7 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 9 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -7 \\ \hline \end{array}$ |
|--|--|--|---|---|---|---|--|--|--|

| | | | | | | | | | |
|--|--|---|---|--|---|--|---|--|---|
| $\begin{array}{r} 5 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 17 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 15 \\ -6 \\ \hline \end{array}$ |
|--|--|---|---|--|---|--|---|--|---|

| | | | | | | | | | |
|---|--|--|---|---|---|---|---|--|---|
| $\begin{array}{r} 10 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -7 \\ \hline \end{array}$ |
|---|--|--|---|---|---|---|---|--|---|

| | | | | | | | | | |
|---|---|---|--|---|--|---|--|---|---|
| $\begin{array}{r} 11 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 10 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ -1 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 18 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -9 \\ \hline \end{array}$ |
|---|---|---|--|---|--|---|--|---|---|

| | | | | | | | | | |
|--|--|---|---|---|---|---|--|--|--|
| $\begin{array}{r} 6 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 12 \\ -10 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -3 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -9 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 13 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 0 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 7 \\ -7 \\ \hline \end{array}$ | $\begin{array}{r} 11 \\ -10 \\ \hline \end{array}$ |
|--|--|---|---|---|---|---|--|--|--|

| | | | | | | | | | |
|--|---|--|--|---|--|--|--|--|--|
| $\begin{array}{r} 4 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 14 \\ -4 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -0 \\ \hline \end{array}$ | $\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 16 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -6 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline \end{array}$ | $\begin{array}{r} 6 \\ -2 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ -8 \\ \hline \end{array}$ | $\begin{array}{r} 4 \\ -4 \\ \hline \end{array}$ |
|--|---|--|--|---|--|--|--|--|--|

LEVEL C

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Skill 2

Solve the equation.

Put parentheses () to show which numbers are added first.

$$3 + 2 + 1 = \square$$

$$6 + 3 + 2 = \square$$

$$5 + 3 + 2 = \square$$

$$2 + 2 + 1 = \square$$

$$4 + 2 + 3 = \square$$

$$7 + 2 + 4 = \square$$

Name the sums.

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 4 | 7 | 8 | 2 | 6 | 5 | 6 | 7 |
| 4 | 4 | 1 | 3 | 4 | 1 | 5 | 3 |
| <u>+4</u> | <u>+3</u> | <u>+2</u> | <u>+8</u> | <u>+4</u> | <u>+6</u> | <u>+3</u> | <u>+5</u> |

Write the numeral in the

$$9 + 3 = 9 + (\square + 2) = (9 + \square) + \square$$

$$= \square + \square$$

$$= \square$$

$$4 + 3 + 6 = (4 + 3) + 6$$

$$= \square + 6$$

$$= \square$$

| | | | |
|---|---|---|--|
| | 4 | → | 4 |
| + | <div style="border: 1px solid black; padding: 2px;">3</div> | → | <div style="border: 1px solid black; padding: 2px;"></div> |
| | 6 | → | <div style="border: 1px solid black; padding: 2px;"></div> |

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Skill 3

Complete these number sentences.

$4 + \square = 13$

$9 + 7 = \square$

$\square + 3 = 7$

$\square - 3 = 5$

$15 - \square = 6$

$7 - \square = 3$

Write + or - in each \bigcirc .

$8 \bigcirc 5 = 3$

$6 \bigcirc 3 = 3$

$2 \bigcirc 3 = 5$

$7 \bigcirc 3 = 10$

$4 \bigcirc 2 = 2$

$8 \bigcirc 5 = 13$

Write $>$, $<$ or $=$ in each \bigcirc .

$10 - 3 \bigcirc 6$

$8 - 3 \bigcirc 3 + 2$

$6 - 1 \bigcirc 2 + 2$

$4 + 5 \bigcirc 6 + 2$

$7 + 3 \bigcirc 5 + 9$

$8 \bigcirc 10$

$9 \bigcirc 10$

$4 - 2 \bigcirc 3$

$7 \bigcirc 4 + 1$

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Skill 4

Name the sums.

$$\begin{array}{r} 42 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 91 \\ +8 \\ \hline \end{array}$$

Write the numerals in each .

$$47 = 40 + \text{} \text{ so } 47 + 4 = (\text{} + \text{}) + 4$$

$$= \text{} (\text{} + 4)$$

$$= \text{} + \text{} = \text{}$$

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Skill 5

Name the sums.

$$\begin{array}{r} 55 \\ +43 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ +65 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ +23 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ +10 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ +20 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ +21 \\ \hline \end{array}$$

$$\begin{array}{r} 30 \\ +69 \\ \hline \end{array}$$

$$\begin{array}{r} 77 \\ +21 \\ \hline \end{array}$$

$$\begin{array}{r} 255 \\ +734 \\ \hline \end{array}$$

$$\begin{array}{r} 475 \\ +312 \\ \hline \end{array}$$

$$\begin{array}{r} 634 \\ +243 \\ \hline \end{array}$$

$$\begin{array}{r} 583 \\ +314 \\ \hline \end{array}$$

$$\begin{array}{r} 723 \\ +246 \\ \hline \end{array}$$

$$\begin{array}{r} 328 \\ +261 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ +800 \\ \hline \end{array}$$

LEVEL C

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Skill 6

Name the missing addend.

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 26 | 58 | 15 | 99 | 18 | 39 | 46 | 79 |
| <u>-3</u> | <u>-5</u> | <u>-4</u> | <u>-2</u> | <u>-6</u> | <u>-7</u> | <u>-5</u> | <u>-6</u> |

Write the numeral in each .

$26 - 4 = \square$ $65 - 5 = \square$ $49 - 3 = \square$ $18 - 6 = \square$

LEVEL C

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Skill 7

Name the missing addend.

| | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|
| 70 | 67 | 85 | 54 | 96 | 85 | 43 | 78 |
| <u>-30</u> | <u>-24</u> | <u>-42</u> | <u>-33</u> | <u>-45</u> | <u>-35</u> | <u>-32</u> | <u>-46</u> |

| | | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 976 | 315 | 856 | 548 | 689 | 454 | 793 | 932 |
| <u>-725</u> | <u>-245</u> | <u>-545</u> | <u>-217</u> | <u>-446</u> | <u>-332</u> | <u>-372</u> | <u>-621</u> |

LEVEL C

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Skill 8

Write the numeral in the .

$29 + 1 = \square$

$74 + 7 = \square$

$85 + 8 = \square$

$65 + 5 = \square$

$48 + 3 = \square$

$39 + 7 = \square$

$78 + 3 = \square$

$59 + 4 = \square$

$63 + 9 = \square$

Name the sums.

$$\begin{array}{r} 15 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 83 \\ +7 \\ \hline \end{array}$$

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Skill 9

Write the numeral in the .

$80 - 7 = \square$

$56 - 9 = \square$

$32 - 4 = \square$

$55 - 6 = \square$

$73 - 7 = \square$

$74 - 5 = \square$

$43 - 5 = \square$

$72 - 4 = \square$

$66 - 9 = \square$

Name the missing addends.

$$\begin{array}{r} 31 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ -6 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 64 \\ -7 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ -6 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ -9 \\ \hline \end{array}$$

$$\begin{array}{r} 76 \\ -8 \\ \hline \end{array}$$

$$\begin{array}{r} 58 \\ -9 \\ \hline \end{array}$$

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Skill 10

Complete the number patterns.

| | | | | | |
|---|----|---|----|----|---|
| + | 7 | 8 | 11 | 10 | 9 |
| 7 | 14 | | | | |

| | | | | | |
|---|----|---|----|----|----|
| + | 2 | | | | |
| 8 | 10 | 9 | 18 | 14 | 12 |

| | | | | | |
|---|----|---|---|---|---|
| + | 5 | 8 | 3 | 9 | 2 |
| 6 | 11 | | | | |

| | | | | | |
|---|----|---|---|----|----|
| + | 6 | | | | |
| 6 | 12 | 9 | 7 | 18 | 15 |

LEVEL C

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Skill 11

Name the sums.

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 68 \\ +15 \\ \hline \end{array}$ | $\begin{array}{r} 59 \\ +27 \\ \hline \end{array}$ | $\begin{array}{r} 47 \\ +36 \\ \hline \end{array}$ | $\begin{array}{r} 27 \\ +25 \\ \hline \end{array}$ | $\begin{array}{r} 39 \\ +42 \\ \hline \end{array}$ | $\begin{array}{r} 63 \\ +28 \\ \hline \end{array}$ | $\begin{array}{r} 74 \\ +17 \\ \hline \end{array}$ | $\begin{array}{r} 55 \\ +36 \\ \hline \end{array}$ |
|--|--|--|--|--|--|--|--|

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 18 \\ +29 \\ \hline \end{array}$ | $\begin{array}{r} 33 \\ +19 \\ \hline \end{array}$ | $\begin{array}{r} 25 \\ +49 \\ \hline \end{array}$ | $\begin{array}{r} 56 \\ +36 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ +15 \\ \hline \end{array}$ | $\begin{array}{r} 77 \\ +17 \\ \hline \end{array}$ | $\begin{array}{r} 66 \\ +29 \\ \hline \end{array}$ | $\begin{array}{r} 49 \\ +26 \\ \hline \end{array}$ |
|--|--|--|--|--|--|--|--|

LEVEL C

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Skill 12

Solve the equations.

$80 - 56 = \boxed{}$

$71 - 43 = \boxed{}$

$45 - 27 = \boxed{}$

Name the missing addends.

$$\begin{array}{r} 81 \\ -29 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ -57 \\ \hline \end{array}$$

$$\begin{array}{r} 91 \\ -66 \\ \hline \end{array}$$

$$\begin{array}{r} 44 \\ -17 \\ \hline \end{array}$$

$$\begin{array}{r} 96 \\ -77 \\ \hline \end{array}$$

$$\begin{array}{r} 55 \\ -16 \\ \hline \end{array}$$

$$\begin{array}{r} 94 \\ -59 \\ \hline \end{array}$$

$$\begin{array}{r} 61 \\ -42 \\ \hline \end{array}$$

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Skill 13

Name the sums and the missing addends.

$$\begin{array}{r} 93 \\ -29 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ -6 \\ \hline \end{array}$$

$$\begin{array}{r} 27 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ +28 \\ \hline \end{array}$$

$$\begin{array}{r} 695 \\ -233 \\ \hline \end{array}$$

$$\begin{array}{r} 754 \\ -243 \\ \hline \end{array}$$

$$\begin{array}{r} 618 \\ +321 \\ \hline \end{array}$$

$$\begin{array}{r} 723 \\ -512 \\ \hline \end{array}$$

$$\begin{array}{r} 606 \\ +221 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ -35 \\ \hline \end{array}$$

$$\begin{array}{r} 536 \\ +422 \\ \hline \end{array}$$

$$\begin{array}{r} 986 \\ -733 \\ \hline \end{array}$$

LEVEL C

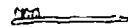
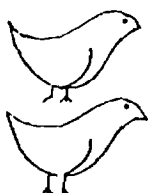
FRACTIONS

Skill 1, 5

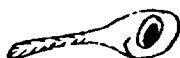
Name _____

Date _____

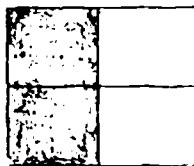
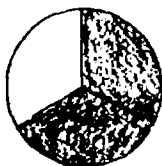
1. Ring $\frac{1}{2}$ of the objects in each set.



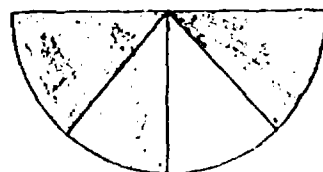
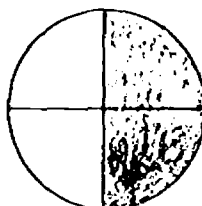
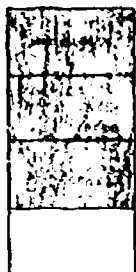
2. Ring $\frac{1}{3}$ of the objects in each set.



3. Write $\frac{2}{3}$ under the regions that are two thirds colored.



4. Write $\frac{3}{4}$ under the regions that are three fourths colored.



LEVEL C

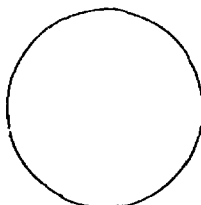
FRACTIONS

Skill 2

Name _____

Date _____

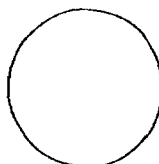
1. Divide this circle into fourths.



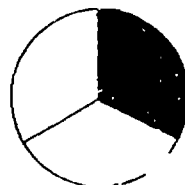
2. Divide this rectangle into thirds.



3. Divide this circle into halves.



4. One of _____ equal parts has been shaded.



5. One of _____ equal parts has been shaded.



LEVEL C

Name _____

FRACTIONS

Date _____

Skill 4

1. Draw a ring around the fraction which shows how much of the rectangle is shaded.

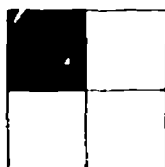


$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

2. What part of the



is shaded?

$\frac{1}{3}$

$\frac{1}{4}$

$\frac{1}{2}$

3. Is $\frac{1}{2}$ of this



shaded?

Yes

No

4. Draw a ring around the fraction which shows how much of the rectangle is shaded.



$\frac{1}{4}$

$\frac{1}{3}$

$\frac{1}{2}$

5. Draw a ring around the fraction which shows how much of the triangle is shaded.



$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

LEVEL C

Name _____

NON-METRIC GEOMETRY

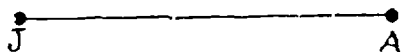
Date _____

Skill 1

Draw the line segments.

\overline{AB} \overline{BC} \overline{CD} \overline{DE} \overline{EF} \overline{FG} \overline{GH} \overline{HI} \overline{IJ}

• 8



LEVEL C

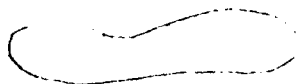
Name _____

NON-METRIC GEOMETRY

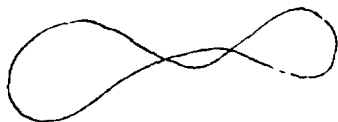
Date _____

Skill 2, 3

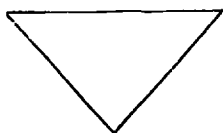
Put an X on the closed curve.



Put an X on the simple curve.



How many sides does each curve have?

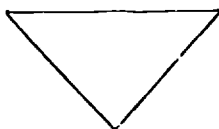






How many corners does each curve have?







LEVEL C

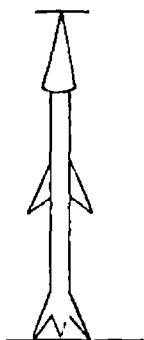
METRIC GEOMETRY

Skill 1, 2

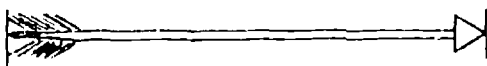
Name _____

Date _____

Measure to the nearest one-half inch.



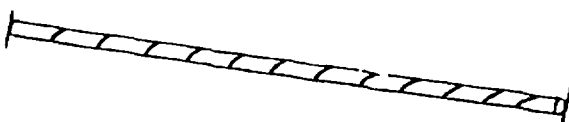
_____ inches



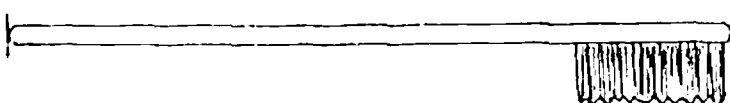
_____ inches



_____ inches



_____ inches



_____ inches

LEVEL C

METRIC GEOMETRY

Skill 3, 4

Name _____

Date _____

1. Circle the greater length.

10 inches

1 foot

2. Circle the greater length.

26 inches

2 feet

3. Circle the lesser length.

1 foot

14 inches

4. Circle the lesser length.

20 inches

2 feet

1. 2 pints = _____ cups

4. 4 quarts = _____ gallon

2. 1 quart = _____ pints

5. 2 half-gallons = _____ gallon

3. 2 pints = _____ quart

6. 2 quarts = _____ gallon

LEVEL C

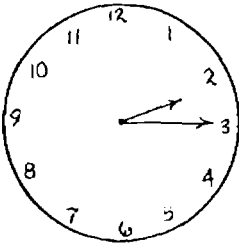
TIME

Skill 1

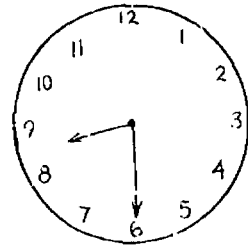
Name _____

Date _____

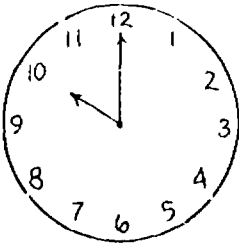
What time does each clock show?



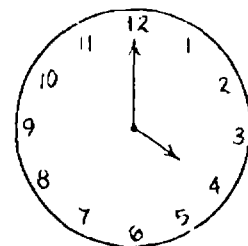
Quarter past _____



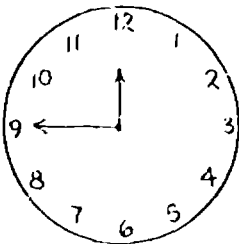
Half past _____



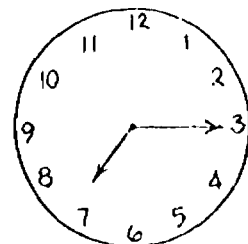
_____ o'clock



_____ o'clock



Quarter to _____



Quarter past _____

LEVEL C

Name _____

MONEY

Date _____

Skill 1

1. Circle the coins you would need to buy a ball for 25¢.



2. Circle the coins you would need to buy a toy truck for 50¢.



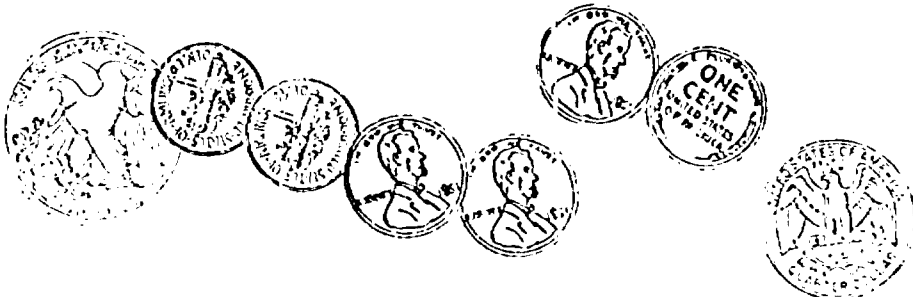
3. Circle the coin you would need to buy a balloon for 10¢.



4. Circle the coins you would need to buy a top for 15¢.



5. Circle the coins you would need to buy a doll for 89¢.



LEVEL C

Name _____

MONEY

Date _____

Skill 2

Find the values of these collections of coins.

1.



_____¢

2.



_____¢

3.



_____¢

4.



_____¢

5.



_____¢

LEVEL C

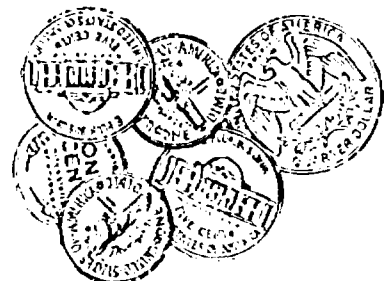
Name _____

MONEY

Date _____

Skill 3

Mark the set of coins that has the greater value.



LEVEL C

NUMERATION

Skill 1

Name _____

Date _____

N U M E R A L

Write M in the third

Write L in the seventh

Write E in the fourth

Write N in the first

Write A in the sixth

Write U in the second

Write R in the fifth

LEVEL C

Name _____

NUMERATION

Date _____

Skill 2, 3

Fill in the missing numerals.

1) 200, 199, 198, 197, 196, 195

2) 76, 77, 78, 79, 80, 81

3) 54, 55, 56, 57, 58, 59

4) 126, 127, 128, 129, 130, 131

5) 43, 42, 41, 40, 39, 38

6) 57, 47, 37, 27, 17, 7

7) 125, 135, 145, 155, 165, 175

8) 111, 121, 131, 141, 151, 161

9) 178, 168, 158, 148, 138, 128

10) 97, 87, 77, 67, 57, 47

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1 (Page 1 of 3 pages)

Name the sum or missing addend.

$9 + 6 = \underline{15}$

$11 - 8 = \underline{3}$

$5 + 6 = \underline{11}$

$8 + 7 = \underline{15}$

$14 - 6 = \underline{8}$

$14 - 8 = \underline{6}$

$8 - 4 = \underline{4}$

$7 + 9 = \underline{16}$

$16 - 7 = \underline{9}$

$$\begin{array}{r} 7 \\ +6 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 13 \\ - 8 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 17 \\ - 8 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 9 \\ +5 \\ \hline 14 \end{array}$$

$$\begin{array}{r} 16 \\ - 5 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 12 \\ - 6 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 15 \\ - 4 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 8 \\ +8 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 14 \\ - 5 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 18 \\ - 9 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 9 \\ +7 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 7 \\ +6 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 15 \\ - 6 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 16 \\ - 4 \\ \hline 12 \end{array}$$

$10 + 2 = \underline{12}$

$6 + 7 = \underline{13}$

$8 + 7 = \underline{15}$

$2 + 10 = \underline{12}$

$7 + 6 = \underline{13}$

$7 + 8 = \underline{15}$

$18 - 9 = \underline{9}$

$16 - 5 = \underline{11}$

$17 - 4 = \underline{13}$

$9 + 9 = \underline{18}$

$11 + 5 = \underline{16}$

$13 + 4 = \underline{17}$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1 (Page 2 of 3 pages)

Timed: 10 minutes

Add

| | | | | | | | | | |
|---|--|--|---|--|--|--|--|--|--|
| $\begin{array}{r} 2 \\ +5 \\ \hline 7 \end{array}$ | $\begin{array}{r} 2 \\ +10 \\ \hline 12 \end{array}$ | $\begin{array}{r} 7 \\ +7 \\ \hline 14 \end{array}$ | $\begin{array}{r} 3 \\ +2 \\ \hline 5 \end{array}$ | $\begin{array}{r} 10 \\ +1 \\ \hline 11 \end{array}$ | $\begin{array}{r} 4 \\ +4 \\ \hline 8 \end{array}$ | $\begin{array}{r} 5 \\ +3 \\ \hline 8 \end{array}$ | $\begin{array}{r} 4 \\ +3 \\ \hline 7 \end{array}$ | $\begin{array}{r} 5 \\ +0 \\ \hline 5 \end{array}$ | $\begin{array}{r} 0 \\ +9 \\ \hline 9 \end{array}$ |
| $\begin{array}{r} 1 \\ +2 \\ \hline 3 \end{array}$ | $\begin{array}{r} 7 \\ +10 \\ \hline 17 \end{array}$ | $\begin{array}{r} 2 \\ +6 \\ \hline 8 \end{array}$ | $\begin{array}{r} 3 \\ +6 \\ \hline 9 \end{array}$ | $\begin{array}{r} 5 \\ +6 \\ \hline 11 \end{array}$ | $\begin{array}{r} 10 \\ +7 \\ \hline 17 \end{array}$ | $\begin{array}{r} 4 \\ +10 \\ \hline 14 \end{array}$ | $\begin{array}{r} 9 \\ +7 \\ \hline 16 \end{array}$ | $\begin{array}{r} 3 \\ +7 \\ \hline 10 \end{array}$ | $\begin{array}{r} 0 \\ +6 \\ \hline 6 \end{array}$ |
| $\begin{array}{r} 3 \\ +8 \\ \hline 11 \end{array}$ | $\begin{array}{r} 5 \\ +7 \\ \hline 12 \end{array}$ | $\begin{array}{r} 8 \\ +10 \\ \hline 18 \end{array}$ | $\begin{array}{r} 7 \\ +1 \\ \hline 8 \end{array}$ | $\begin{array}{r} 9 \\ +2 \\ \hline 11 \end{array}$ | $\begin{array}{r} 8 \\ +5 \\ \hline 13 \end{array}$ | $\begin{array}{r} 10 \\ +2 \\ \hline 12 \end{array}$ | $\begin{array}{r} 8 \\ +8 \\ \hline 16 \end{array}$ | $\begin{array}{r} 3 \\ +4 \\ \hline 7 \end{array}$ | $\begin{array}{r} 8 \\ +0 \\ \hline 8 \end{array}$ |
| $\begin{array}{r} 7 \\ +8 \\ \hline 15 \end{array}$ | $\begin{array}{r} 6 \\ +6 \\ \hline 12 \end{array}$ | $\begin{array}{r} 1 \\ +10 \\ \hline 11 \end{array}$ | $\begin{array}{r} 4 \\ +5 \\ \hline 9 \end{array}$ | $\begin{array}{r} 3 \\ +3 \\ \hline 6 \end{array}$ | $\begin{array}{r} 7 \\ +6 \\ \hline 13 \end{array}$ | $\begin{array}{r} 9 \\ +3 \\ \hline 12 \end{array}$ | $\begin{array}{r} 8 \\ +7 \\ \hline 15 \end{array}$ | $\begin{array}{r} 10 \\ +6 \\ \hline 16 \end{array}$ | $\begin{array}{r} 7 \\ +4 \\ \hline 11 \end{array}$ |
| $\begin{array}{r} 0 \\ +0 \\ \hline 0 \end{array}$ | $\begin{array}{r} 2 \\ +4 \\ \hline 6 \end{array}$ | $\begin{array}{r} 10 \\ +7 \\ \hline 17 \end{array}$ | $\begin{array}{r} 3 \\ +7 \\ \hline 16 \end{array}$ | $\begin{array}{r} 5 \\ +8 \\ \hline 13 \end{array}$ | $\begin{array}{r} 4 \\ +1 \\ \hline 5 \end{array}$ | $\begin{array}{r} 0 \\ +2 \\ \hline 2 \end{array}$ | $\begin{array}{r} 4 \\ +10 \\ \hline 14 \end{array}$ | $\begin{array}{r} 6 \\ +8 \\ \hline 14 \end{array}$ | $\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$ |
| $\begin{array}{r} 1 \\ +5 \\ \hline 6 \end{array}$ | $\begin{array}{r} 3 \\ +1 \\ \hline 4 \end{array}$ | $\begin{array}{r} 0 \\ +8 \\ \hline 8 \end{array}$ | $\begin{array}{r} 7 \\ +3 \\ \hline 10 \end{array}$ | $\begin{array}{r} 10 \\ +3 \\ \hline 13 \end{array}$ | $\begin{array}{r} 9 \\ +8 \\ \hline 17 \end{array}$ | $\begin{array}{r} 8 \\ +4 \\ \hline 12 \end{array}$ | $\begin{array}{r} 2 \\ +7 \\ \hline 9 \end{array}$ | $\begin{array}{r} 6 \\ +10 \\ \hline 16 \end{array}$ | $\begin{array}{r} 6 \\ +5 \\ \hline 11 \end{array}$ |
| $\begin{array}{r} 8 \\ +3 \\ \hline 11 \end{array}$ | $\begin{array}{r} 0 \\ +10 \\ \hline 10 \end{array}$ | $\begin{array}{r} 6 \\ +7 \\ \hline 13 \end{array}$ | $\begin{array}{r} 6 \\ +9 \\ \hline 15 \end{array}$ | $\begin{array}{r} 9 \\ +9 \\ \hline 18 \end{array}$ | $\begin{array}{r} 5 \\ +4 \\ \hline 9 \end{array}$ | $\begin{array}{r} 8 \\ +9 \\ \hline 17 \end{array}$ | $\begin{array}{r} 7 \\ +5 \\ \hline 12 \end{array}$ | $\begin{array}{r} 2 \\ +8 \\ \hline 10 \end{array}$ | $\begin{array}{r} 10 \\ +4 \\ \hline 14 \end{array}$ |
| $\begin{array}{r} 6 \\ +2 \\ \hline 8 \end{array}$ | $\begin{array}{r} 9 \\ +6 \\ \hline 15 \end{array}$ | $\begin{array}{r} 10 \\ +5 \\ \hline 15 \end{array}$ | $\begin{array}{r} 4 \\ +6 \\ \hline 10 \end{array}$ | $\begin{array}{r} 6 \\ +3 \\ \hline 9 \end{array}$ | $\begin{array}{r} 4 \\ +8 \\ \hline 12 \end{array}$ | $\begin{array}{r} 6 \\ +0 \\ \hline 6 \end{array}$ | $\begin{array}{r} 3 \\ +9 \\ \hline 12 \end{array}$ | $\begin{array}{r} 5 \\ +2 \\ \hline 7 \end{array}$ | $\begin{array}{r} 9 \\ +4 \\ \hline 13 \end{array}$ |
| $\begin{array}{r} 5 \\ +5 \\ \hline 10 \end{array}$ | $\begin{array}{r} 7 \\ +2 \\ \hline 9 \end{array}$ | $\begin{array}{r} 3 \\ +5 \\ \hline 8 \end{array}$ | $\begin{array}{r} 9 \\ +5 \\ \hline 14 \end{array}$ | $\begin{array}{r} 3 \\ +10 \\ \hline 13 \end{array}$ | $\begin{array}{r} 8 \\ +6 \\ \hline 14 \end{array}$ | $\begin{array}{r} 0 \\ +5 \\ \hline 5 \end{array}$ | $\begin{array}{r} 7 \\ +0 \\ \hline 7 \end{array}$ | $\begin{array}{r} 1 \\ +3 \\ \hline 4 \end{array}$ | $\begin{array}{r} 10 \\ +8 \\ \hline 18 \end{array}$ |
| $\begin{array}{r} 0 \\ +4 \\ \hline 4 \end{array}$ | $\begin{array}{r} 2 \\ +8 \\ \hline 10 \end{array}$ | $\begin{array}{r} 8 \\ +2 \\ \hline 10 \end{array}$ | $\begin{array}{r} 4 \\ +9 \\ \hline 13 \end{array}$ | $\begin{array}{r} 8 \\ +1 \\ \hline 9 \end{array}$ | $\begin{array}{r} 2 \\ +3 \\ \hline 5 \end{array}$ | $\begin{array}{r} 7 \\ +9 \\ \hline 16 \end{array}$ | $\begin{array}{r} 5 \\ +10 \\ \hline 15 \end{array}$ | $\begin{array}{r} 6 \\ +4 \\ \hline 10 \end{array}$ | $\begin{array}{r} 0 \\ +1 \\ \hline 1 \end{array}$ |

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1 (Page 3 of 3 pages)

Timed: 10 minutes

Subtract

| | | | | | | | | | |
|---|--|--|--|--|---|---|---|--|---|
| $\begin{array}{r} 12 \\ -8 \\ \hline 4 \end{array}$ | $\begin{array}{r} 9 \\ -4 \\ \hline 5 \end{array}$ | $\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$ | $\begin{array}{r} 6 \\ -4 \\ \hline 2 \end{array}$ | $\begin{array}{r} 9 \\ -8 \\ \hline 1 \end{array}$ | $\begin{array}{r} 13 \\ -7 \\ \hline 6 \end{array}$ | $\begin{array}{r} 11 \\ -3 \\ \hline 8 \end{array}$ | $\begin{array}{r} 17 \\ -9 \\ \hline 8 \end{array}$ | $\begin{array}{r} 15 \\ -10 \\ \hline 5 \end{array}$ | $\begin{array}{r} 12 \\ -5 \\ \hline 7 \end{array}$ |
|---|--|--|--|--|---|---|---|--|---|

| | | | | | | | | | |
|--|---|---|--|---|---|---|---|--|--|
| $\begin{array}{r} 12 \\ -2 \\ \hline 10 \end{array}$ | $\begin{array}{r} 14 \\ -5 \\ \hline 9 \end{array}$ | $\begin{array}{r} 13 \\ -6 \\ \hline 7 \end{array}$ | $\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$ | $\begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$ | $\begin{array}{r} 14 \\ -6 \\ \hline 8 \end{array}$ | $\begin{array}{r} 13 \\ -5 \\ \hline 8 \end{array}$ | $\begin{array}{r} 10 \\ -6 \\ \hline 4 \end{array}$ | $\begin{array}{r} 9 \\ -7 \\ \hline 2 \end{array}$ | $\begin{array}{r} 13 \\ -10 \\ \hline 3 \end{array}$ |
|--|---|---|--|---|---|---|---|--|--|

| | | | | | | | | | |
|---|--|--|--|--|---|--|--|---|--|
| $\begin{array}{r} 10 \\ -9 \\ \hline 1 \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline 3 \end{array}$ | $\begin{array}{r} 9 \\ -2 \\ \hline 7 \end{array}$ | $\begin{array}{r} 7 \\ -0 \\ \hline 7 \end{array}$ | $\begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$ | $\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$ | $\begin{array}{r} 16 \\ -6 \\ \hline 10 \end{array}$ | $\begin{array}{r} 18 \\ -10 \\ \hline 8 \end{array}$ | $\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$ | $\begin{array}{r} 9 \\ -5 \\ \hline 4 \end{array}$ |
|---|--|--|--|--|---|--|--|---|--|

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|--|---|---|--|---|---|---|--|--|---|
| $\begin{array}{r} 5 \\ -3 \\ \hline 2 \end{array}$ | $\begin{array}{r} 11 \\ -2 \\ \hline 9 \end{array}$ | $\begin{array}{r} 13 \\ -4 \\ \hline 9 \end{array}$ | $\begin{array}{r} 15 \\ -5 \\ \hline 10 \end{array}$ | $\begin{array}{r} 14 \\ -9 \\ \hline 5 \end{array}$ | $\begin{array}{r} 10 \\ -8 \\ \hline 2 \end{array}$ | $\begin{array}{r} 12 \\ -4 \\ \hline 8 \end{array}$ | $\begin{array}{r} 9 \\ -6 \\ \hline 3 \end{array}$ | $\begin{array}{r} 7 \\ -5 \\ \hline 2 \end{array}$ | $\begin{array}{r} 14 \\ -8 \\ \hline 6 \end{array}$ |
|--|---|---|--|---|---|---|--|--|---|

| | | | | | | | | | |
|--|--|--|--|---|---|---|---|--|--|
| $\begin{array}{r} 7 \\ -4 \\ \hline 3 \end{array}$ | $\begin{array}{r} 9 \\ -0 \\ \hline 9 \end{array}$ | $\begin{array}{r} 4 \\ -3 \\ \hline 1 \end{array}$ | $\begin{array}{r} 17 \\ -7 \\ \hline 10 \end{array}$ | $\begin{array}{r} 15 \\ -9 \\ \hline 6 \end{array}$ | $\begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$ | $\begin{array}{r} 10 \\ -1 \\ \hline 9 \end{array}$ | $\begin{array}{r} 15 \\ -8 \\ \hline 7 \end{array}$ | $\begin{array}{r} 16 \\ -10 \\ \hline 6 \end{array}$ | $\begin{array}{r} 8 \\ -7 \\ \hline 1 \end{array}$ |
|--|--|--|--|---|---|---|---|--|--|

| | | | | | | | | | |
|--|--|--|---|--|---|--|---|--|---|
| $\begin{array}{r} 5 \\ -5 \\ \hline 0 \end{array}$ | $\begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$ | $\begin{array}{r} 10 \\ -0 \\ \hline 10 \end{array}$ | $\begin{array}{r} 11 \\ -7 \\ \hline 4 \end{array}$ | $\begin{array}{r} 8 \\ -0 \\ \hline 8 \end{array}$ | $\begin{array}{r} 11 \\ -5 \\ \hline 6 \end{array}$ | $\begin{array}{r} 6 \\ -6 \\ \hline 0 \end{array}$ | $\begin{array}{r} 15 \\ -7 \\ \hline 8 \end{array}$ | $\begin{array}{r} 17 \\ -10 \\ \hline 7 \end{array}$ | $\begin{array}{r} 15 \\ -6 \\ \hline 9 \end{array}$ |
|--|--|--|---|--|---|--|---|--|---|

| | | | | | | | | | |
|---|--|--|---|---|---|---|---|--|---|
| $\begin{array}{r} 10 \\ -2 \\ \hline 8 \end{array}$ | $\begin{array}{r} 10 \\ -10 \\ \hline 0 \end{array}$ | $\begin{array}{r} 3 \\ -3 \\ \hline 0 \end{array}$ | $\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$ | $\begin{array}{r} 12 \\ -6 \\ \hline 6 \end{array}$ | $\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$ | $\begin{array}{r} 12 \\ -3 \\ \hline 9 \end{array}$ | $\begin{array}{r} 11 \\ -4 \\ \hline 7 \end{array}$ | $\begin{array}{r} 14 \\ -10 \\ \hline 4 \end{array}$ | $\begin{array}{r} 14 \\ -7 \\ \hline 7 \end{array}$ |
|---|--|--|---|---|---|---|---|--|---|

| | | | | | | | | | |
|--|---|---|--|---|--|--|--|---|---|
| $\begin{array}{r} 11 \\ -1 \\ \hline 10 \end{array}$ | $\begin{array}{r} 10 \\ -3 \\ \hline 7 \end{array}$ | $\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$ | $\begin{array}{r} 8 \\ -1 \\ \hline 7 \end{array}$ | $\begin{array}{r} 12 \\ -7 \\ \hline 5 \end{array}$ | $\begin{array}{r} 7 \\ -3 \\ \hline 4 \end{array}$ | $\begin{array}{r} 18 \\ -8 \\ \hline 10 \end{array}$ | $\begin{array}{r} 1 \\ -0 \\ \hline 1 \end{array}$ | $\begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$ | $\begin{array}{r} 12 \\ -9 \\ \hline 3 \end{array}$ |
|--|---|---|--|---|--|--|--|---|---|

| | | | | | | | | | |
|--|--|--|---|---|---|---|--|--|--|
| $\begin{array}{r} 6 \\ -0 \\ \hline 6 \end{array}$ | $\begin{array}{r} 12 \\ -10 \\ \hline 2 \end{array}$ | $\begin{array}{r} 13 \\ -3 \\ \hline 10 \end{array}$ | $\begin{array}{r} 11 \\ -9 \\ \hline 2 \end{array}$ | $\begin{array}{r} 13 \\ -9 \\ \hline 4 \end{array}$ | $\begin{array}{r} 11 \\ -8 \\ \hline 3 \end{array}$ | $\begin{array}{r} 13 \\ -8 \\ \hline 5 \end{array}$ | $\begin{array}{r} 0 \\ -0 \\ \hline 0 \end{array}$ | $\begin{array}{r} 7 \\ -7 \\ \hline 0 \end{array}$ | $\begin{array}{r} 11 \\ -10 \\ \hline 1 \end{array}$ |
|--|--|--|---|---|---|---|--|--|--|

| | | | | | | | | | |
|--|--|--|--|---|--|--|--|--|--|
| $\begin{array}{r} 4 \\ -0 \\ \hline 4 \end{array}$ | $\begin{array}{r} 14 \\ -4 \\ \hline 10 \end{array}$ | $\begin{array}{r} 5 \\ -0 \\ \hline 5 \end{array}$ | $\begin{array}{r} 5 \\ -2 \\ \hline 3 \end{array}$ | $\begin{array}{r} 16 \\ -8 \\ \hline 8 \end{array}$ | $\begin{array}{r} 8 \\ -6 \\ \hline 2 \end{array}$ | $\begin{array}{r} 8 \\ -5 \\ \hline 3 \end{array}$ | $\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$ | $\begin{array}{r} 8 \\ -8 \\ \hline 0 \end{array}$ | $\begin{array}{r} 4 \\ -4 \\ \hline 0 \end{array}$ |
|--|--|--|--|---|--|--|--|--|--|

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Solve the equation.

Put parentheses () to show which numbers are added first. *Answers will vary.*

$$3 + 2 + 1 = \boxed{6}$$

$$6 + 3 + 2 = \boxed{11}$$

$$5 + 3 + 2 = \boxed{10}$$

$$2 + 2 + 1 = \boxed{5}$$

$$4 + 2 + 3 = \boxed{9}$$

$$7 + 2 + 4 = \boxed{13}$$

Name the sums.

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 4 \\ 4 \\ +4 \\ \hline 12 \end{array}$ | $\begin{array}{r} 7 \\ 4 \\ +3 \\ \hline 14 \end{array}$ | $\begin{array}{r} 8 \\ 1 \\ +2 \\ \hline 11 \end{array}$ | $\begin{array}{r} 2 \\ 3 \\ +8 \\ \hline 13 \end{array}$ | $\begin{array}{r} 6 \\ 4 \\ +4 \\ \hline 14 \end{array}$ | $\begin{array}{r} 5 \\ 1 \\ +6 \\ \hline 12 \end{array}$ | $\begin{array}{r} 6 \\ 5 \\ +3 \\ \hline 14 \end{array}$ | $\begin{array}{r} 7 \\ 3 \\ +5 \\ \hline 15 \end{array}$ |
|--|--|--|--|--|--|--|--|

Write the numeral in the .

$$\begin{aligned}
 9 + 3 &= 9 + (\boxed{1} + 2) = (9 + \boxed{1}) + \boxed{2} \\
 &= \boxed{10} + \boxed{2} \\
 &= \boxed{12}
 \end{aligned}$$

$$\begin{aligned}
 4 + 3 + 6 &= (4 + 3) + 6 \\
 &= \boxed{7} + 6 \\
 &= \boxed{13}
 \end{aligned}$$

$$\begin{array}{r}
 4 \longrightarrow 4 \\
 + \begin{array}{|c|} \hline 3 \\ \hline 6 \\ \hline \end{array} \longrightarrow \begin{array}{|c|} \hline 9 \\ \hline 13 \\ \hline \end{array}
 \end{array}$$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3

Complete these number sentences.

$4 + \boxed{9} = 13$

$9 + 7 = \boxed{16}$

$\boxed{4} + 3 = 7$

$\boxed{8} - 3 = 5$

$15 - \boxed{9} = 6$

$7 - \boxed{4} = 3$

Write + or - in each \bigcirc .

$8 \bigcirc 5 = 3$

$6 \bigcirc 3 = 3$

$2 \bigcirc 3 = 5$

$7 \bigcirc 3 = 10$

$4 \bigcirc 2 = 2$

$8 \bigcirc 5 = 13$

Write $>$, $<$ or $=$ in each \bigcirc .

$10 - 3 \bigcirc 6$

$8 - 3 \bigcirc 3 + 2$

$6 - 1 \bigcirc 2 + 2$

$4 + 5 \bigcirc 6 + 2$

$7 + 3 \bigcirc 5 + 9$

$8 \bigcirc 10$

$9 \bigcirc 10$

$4 - 2 \bigcirc 3$

$7 \bigcirc 4 + 1$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 4

Name the sums.

$$\begin{array}{r} 42 \\ +5 \\ \hline 47 \end{array}$$

$$\begin{array}{r} 24 \\ +4 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 33 \\ +3 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 64 \\ +3 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 45 \\ +4 \\ \hline 49 \end{array}$$

$$\begin{array}{r} 91 \\ +8 \\ \hline 99 \end{array}$$

Write the numerals in each .

$$\begin{aligned} 47 &= 40 + \boxed{7} \text{ so } 47 + 4 = (\boxed{40} + \boxed{7}) + 4 \\ &= \boxed{40} (\boxed{7} + 4) \\ &= \boxed{40} + \boxed{11} = \boxed{51} \end{aligned}$$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5

Name the sums.

$$\begin{array}{r} 55 \\ +43 \\ \hline 98 \end{array}$$

$$\begin{array}{r} 23 \\ +65 \\ \hline 88 \end{array}$$

$$\begin{array}{r} 34 \\ +23 \\ \hline 57 \end{array}$$

$$\begin{array}{r} 80 \\ +10 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 68 \\ +20 \\ \hline 88 \end{array}$$

$$\begin{array}{r} 47 \\ +21 \\ \hline 68 \end{array}$$

$$\begin{array}{r} 30 \\ +69 \\ \hline 99 \end{array}$$

$$\begin{array}{r} 77 \\ +21 \\ \hline 98 \end{array}$$

$$\begin{array}{r} 255 \\ +734 \\ \hline 989 \end{array}$$

$$\begin{array}{r} 475 \\ +312 \\ \hline 787 \end{array}$$

$$\begin{array}{r} 634 \\ +243 \\ \hline 877 \end{array}$$

$$\begin{array}{r} 583 \\ +314 \\ \hline 897 \end{array}$$

$$\begin{array}{r} 723 \\ +246 \\ \hline 969 \end{array}$$

$$\begin{array}{r} 328 \\ +261 \\ \hline 589 \end{array}$$

$$\begin{array}{r} 100 \\ +800 \\ \hline 900 \end{array}$$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 6

Name the missing addend.

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 26 \\ -3 \\ \hline 23 \end{array}$ | $\begin{array}{r} 58 \\ -5 \\ \hline 53 \end{array}$ | $\begin{array}{r} 45 \\ -4 \\ \hline 41 \end{array}$ | $\begin{array}{r} 99 \\ -2 \\ \hline 97 \end{array}$ | $\begin{array}{r} 18 \\ -6 \\ \hline 12 \end{array}$ | $\begin{array}{r} 39 \\ -7 \\ \hline 32 \end{array}$ | $\begin{array}{r} 46 \\ -5 \\ \hline 41 \end{array}$ | $\begin{array}{r} 79 \\ -6 \\ \hline 73 \end{array}$ |
|--|--|--|--|--|--|--|--|

Write the numeral in each .

$26 - 4 = \boxed{22}$ $65 - 5 = \boxed{60}$ $49 - 3 = \boxed{46}$ $18 - 6 = \boxed{12}$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 7

Name the missing addend.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 70 \\ -30 \\ \hline 40 \end{array}$ | $\begin{array}{r} 67 \\ -24 \\ \hline 43 \end{array}$ | $\begin{array}{r} 85 \\ -42 \\ \hline 43 \end{array}$ | $\begin{array}{r} 54 \\ -33 \\ \hline 21 \end{array}$ | $\begin{array}{r} 96 \\ -45 \\ \hline 51 \end{array}$ | $\begin{array}{r} 85 \\ -35 \\ \hline 50 \end{array}$ | $\begin{array}{r} 43 \\ -32 \\ \hline 11 \end{array}$ | $\begin{array}{r} 78 \\ -46 \\ \hline 32 \end{array}$ |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 976 \\ -725 \\ \hline 251 \end{array}$ | $\begin{array}{r} 355 \\ -245 \\ \hline 110 \end{array}$ | $\begin{array}{r} 856 \\ -545 \\ \hline 311 \end{array}$ | $\begin{array}{r} 548 \\ -217 \\ \hline 331 \end{array}$ | $\begin{array}{r} 689 \\ -446 \\ \hline 243 \end{array}$ | $\begin{array}{r} 454 \\ -332 \\ \hline 122 \end{array}$ | $\begin{array}{r} 793 \\ -372 \\ \hline 421 \end{array}$ | $\begin{array}{r} 932 \\ -621 \\ \hline 311 \end{array}$ |
|--|--|--|--|--|--|--|--|

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 8

Write the numeral in the .

$29 + 1 = \boxed{30}$

$74 + 7 = \boxed{81}$

$85 + 8 = \boxed{93}$

$65 + 5 = \boxed{70}$

$48 + 3 = \boxed{51}$

$39 + 7 = \boxed{46}$

$78 + 3 = \boxed{81}$

$59 + 4 = \boxed{63}$

$63 + 9 = \boxed{72}$

Name the sums.

$$\begin{array}{r} 15 \\ +6 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 73 \\ +8 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 56 \\ +6 \\ \hline 62 \end{array}$$

$$\begin{array}{r} 28 \\ +7 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 68 \\ +7 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 48 \\ +5 \\ \hline 53 \end{array}$$

$$\begin{array}{r} 36 \\ +6 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 83 \\ +7 \\ \hline 90 \end{array}$$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 9

Write the numeral in the .

$80 - 7 = \boxed{73}$

$56 - 9 = \boxed{47}$

$32 - 4 = \boxed{28}$

$55 - 6 = \boxed{49}$

$73 - 7 = \boxed{66}$

$74 - 5 = \boxed{69}$

$45 - 5 = \boxed{38}$

$72 - 4 = \boxed{68}$

$66 - 9 = \boxed{57}$

Name the missing addends.

$$\begin{array}{r} 31 \\ -4 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 73 \\ -6 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 82 \\ -8 \\ \hline 74 \end{array}$$

$$\begin{array}{r} 64 \\ -7 \\ \hline 57 \end{array}$$

$$\begin{array}{r} 45 \\ -6 \\ \hline 39 \end{array}$$

$$\begin{array}{r} 62 \\ -9 \\ \hline 53 \end{array}$$

$$\begin{array}{r} 76 \\ -8 \\ \hline 68 \end{array}$$

$$\begin{array}{r} 58 \\ -9 \\ \hline 49 \end{array}$$

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 10

Complete the number patterns.

| | | | | | |
|---|----|----|----|----|----|
| + | 7 | 8 | 11 | 10 | 9 |
| 7 | 14 | 15 | 18 | 17 | 16 |

| | | | | | |
|---|----|---|----|----|----|
| + | 2 | 1 | 10 | 6 | 4 |
| 8 | 10 | 9 | 18 | 14 | 12 |

| | | | | | |
|---|----|----|---|----|---|
| + | 5 | 8 | 3 | 9 | 2 |
| 6 | 11 | 14 | 9 | 15 | 8 |

| | | | | | |
|---|----|---|---|----|----|
| + | 6 | 3 | 1 | 12 | 9 |
| 6 | 12 | 9 | 7 | 18 | 15 |

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 11

Name the sums.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 68 \\ +15 \\ \hline 83 \end{array}$ | $\begin{array}{r} 59 \\ +27 \\ \hline 86 \end{array}$ | $\begin{array}{r} 47 \\ +36 \\ \hline 83 \end{array}$ | $\begin{array}{r} 27 \\ +25 \\ \hline 52 \end{array}$ | $\begin{array}{r} 39 \\ +42 \\ \hline 81 \end{array}$ | $\begin{array}{r} 63 \\ +28 \\ \hline 91 \end{array}$ | $\begin{array}{r} 74 \\ +17 \\ \hline 91 \end{array}$ | $\begin{array}{r} 55 \\ +36 \\ \hline 91 \end{array}$ |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 18 \\ +29 \\ \hline 47 \end{array}$ | $\begin{array}{r} 33 \\ +19 \\ \hline 52 \end{array}$ | $\begin{array}{r} 25 \\ +49 \\ \hline 74 \end{array}$ | $\begin{array}{r} 36 \\ +36 \\ \hline 72 \end{array}$ | $\begin{array}{r} 65 \\ +15 \\ \hline 80 \end{array}$ | $\begin{array}{r} 77 \\ +17 \\ \hline 94 \end{array}$ | $\begin{array}{r} 66 \\ +29 \\ \hline 95 \end{array}$ | $\begin{array}{r} 49 \\ +26 \\ \hline 75 \end{array}$ |
|---|---|---|---|---|---|---|---|

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 12

Solve the equations.

$$80 - 56 = \boxed{24}$$

$$71 - 43 = \boxed{28}$$

$$45 - 27 = \boxed{18}$$

Name the missing addends.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| $\begin{array}{r} 81 \\ -29 \\ \hline 52 \end{array}$ | $\begin{array}{r} 73 \\ -57 \\ \hline 16 \end{array}$ | $\begin{array}{r} 91 \\ -66 \\ \hline 25 \end{array}$ | $\begin{array}{r} 44 \\ -17 \\ \hline 27 \end{array}$ | $\begin{array}{r} 96 \\ -77 \\ \hline 19 \end{array}$ | $\begin{array}{r} 55 \\ -16 \\ \hline 39 \end{array}$ | $\begin{array}{r} 94 \\ -59 \\ \hline 35 \end{array}$ | $\begin{array}{r} 61 \\ -42 \\ \hline 19 \end{array}$ |
|---|---|---|---|---|---|---|---|

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 13

Name the sums and the missing addends.

| | | | | | | | |
|---|---|--|--|--|---|--|--|
| $\begin{array}{r} 93 \\ -29 \\ \hline 64 \end{array}$ | $\begin{array}{r} 8 \\ +9 \\ \hline 17 \end{array}$ | $\begin{array}{r} 59 \\ -6 \\ \hline 53 \end{array}$ | $\begin{array}{r} 27 \\ +2 \\ \hline 29 \end{array}$ | $\begin{array}{r} 39 \\ -4 \\ \hline 35 \end{array}$ | $\begin{array}{r} 46 \\ +28 \\ \hline 74 \end{array}$ | $\begin{array}{r} 695 \\ -233 \\ \hline 462 \end{array}$ | $\begin{array}{r} 754 \\ -243 \\ \hline 511 \end{array}$ |
|---|---|--|--|--|---|--|--|

| | | | | | |
|--|--|--|---|--|--|
| $\begin{array}{r} 618 \\ +321 \\ \hline 939 \end{array}$ | $\begin{array}{r} 723 \\ -512 \\ \hline 211 \end{array}$ | $\begin{array}{r} 606 \\ +221 \\ \hline 827 \end{array}$ | $\begin{array}{r} 74 \\ -35 \\ \hline 39 \end{array}$ | $\begin{array}{r} 536 \\ +422 \\ \hline 958 \end{array}$ | $\begin{array}{r} 986 \\ -733 \\ \hline 253 \end{array}$ |
|--|--|--|---|--|--|

LEVEL C

FRACTIONS

Skill 1, 5

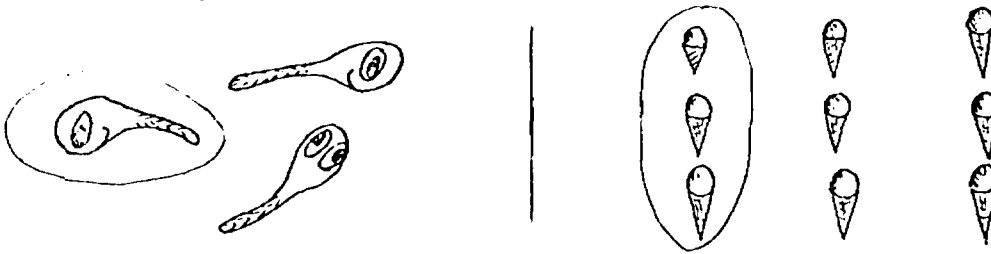
Name _____

Date _____

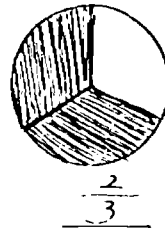
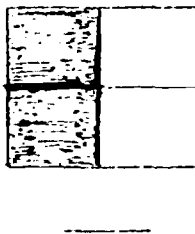
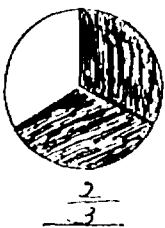
1. Ring $\frac{1}{2}$ of the objects in each set.



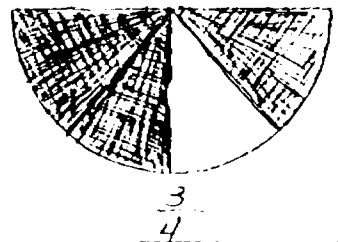
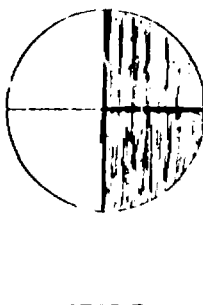
2. Ring $\frac{1}{3}$ of the objects in each set.



3. Write $\frac{2}{3}$ under the regions that are two thirds colored.



4. Write $\frac{3}{4}$ under the regions that are three fourths colored.



LEVEL C

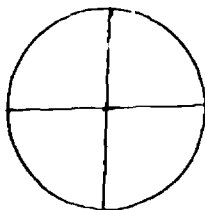
Name _____

FRACTIONS

Date _____

Skill 2

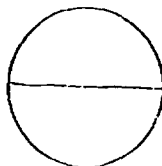
1. Divide this circle into fourths.



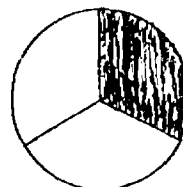
2. Divide this rectangle into thirds.



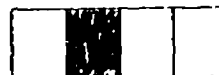
3. Divide this circle into halves.



4. One of 3 equal parts has been shaded.



5. One of 4 equal parts has been shaded.



LEVEL C

Name _____

FRACTIONS

Date _____

Skill 4

1. Draw a ring around the fraction which shows how much of the rectangle is shaded.

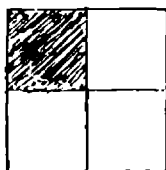


$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

2. What part of the



is shaded?

$\frac{1}{3}$

$\frac{1}{4}$

$\frac{1}{2}$

3. Is $\frac{1}{2}$ of this



shaded?

Yes

No

4. Draw a ring around the fraction which shows how much of the rectangle is shaded.

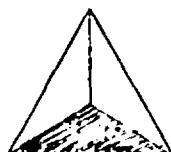


$\frac{1}{4}$

$\frac{1}{3}$

$\frac{1}{2}$

5. Draw a ring around the fraction which shows how much of the triangle is shaded.



$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{4}$

LEVEL C

NON-METRIC GEOMETRY

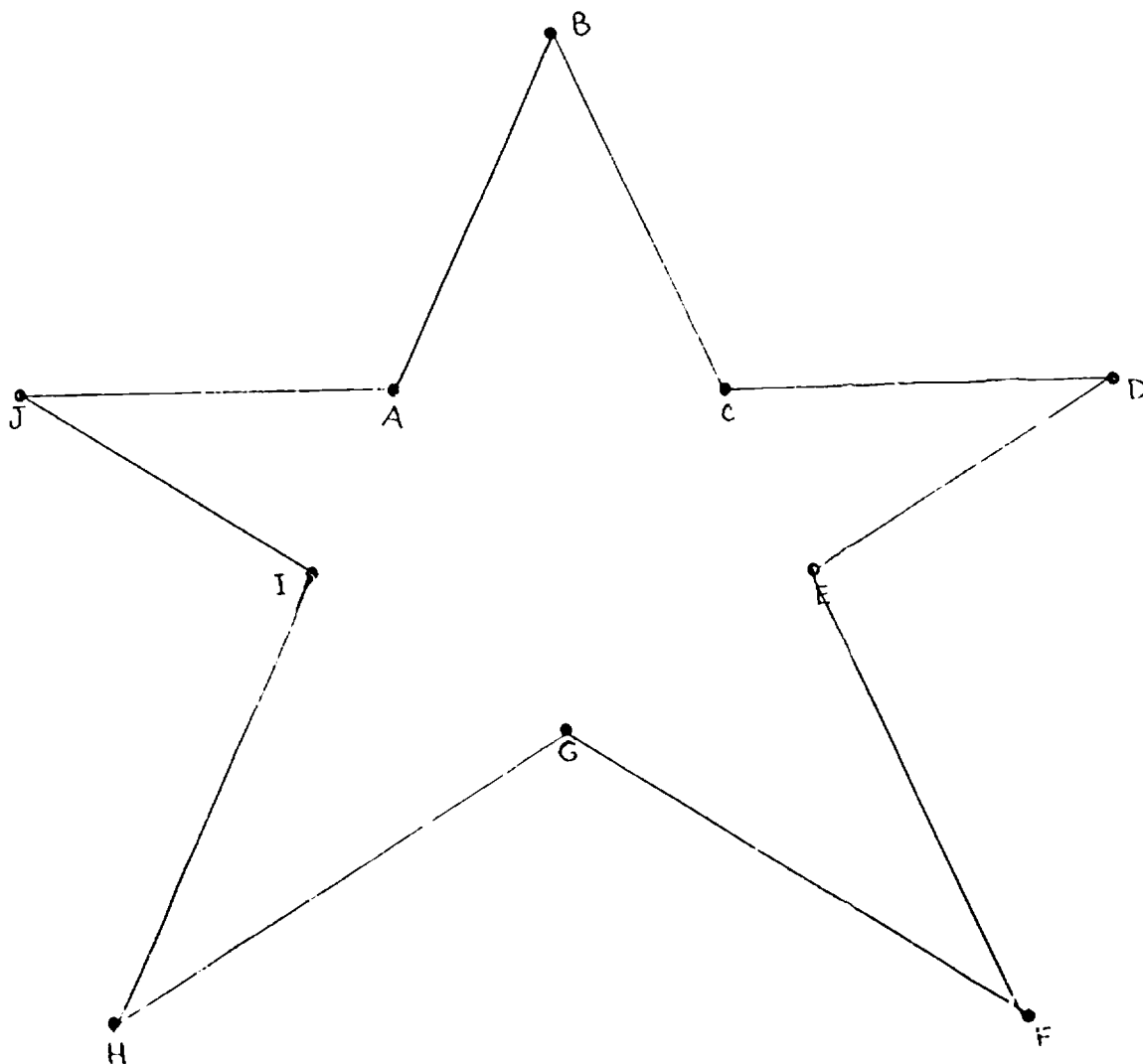
Skill 1

Name _____

Date _____

Draw the line segments.

\overline{AB} \overline{BC} \overline{CD} \overline{DE} \overline{EF} \overline{FG} \overline{GH} \overline{HI} \overline{IJ}



LEVEL C

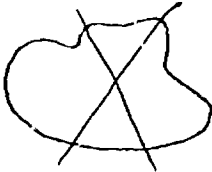
Name _____

NON-METRIC GEOMETRY.

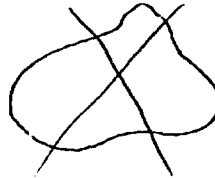
Date _____

Skill 2, 3

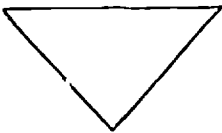
Put an X on the closed curve.



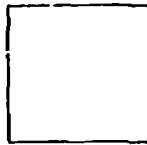
Put an X on the simple curve.



How many sides does each curve have?



3



4

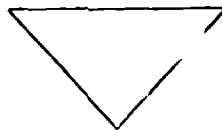


4

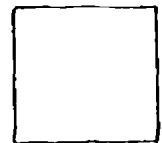
How many corners does each curve have?



4



3



4

LEVEL C

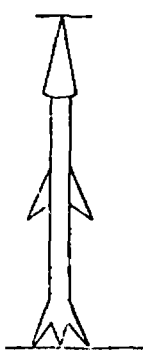
METRIC GEOMETRY

Skill 1, 2

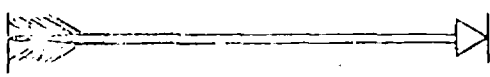
Name _____

Date _____

Measure to the nearest one-half inch.



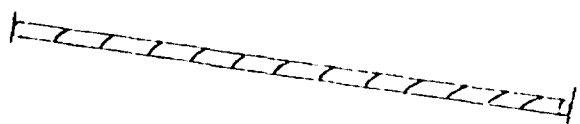
2 inches



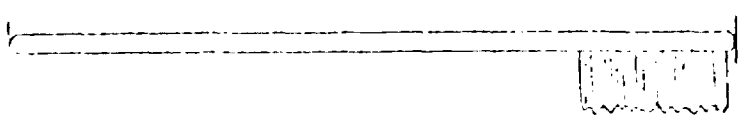
3 inches



1 1/2 inches



3 1/2 inches



4 1/2 inches

LEVEL C

METRIC GEOMETRY

Skill 3, 4

Name _____

Date _____

1. Circle the greater length.

10 inches

(1 foot)

2. Circle the greater length.

(26 inches)

2 feet

3. Circle the lesser length.

(1 foot)

14 inches

4. Circle the lesser length.

(20 inches)

2 feet

1. 2 pints = 1 cups

4. 4 quarts = 1 gallon

2. 1 quart = 2 pints

5. 2 half-gallons = 1 gallon

3. 2 pints = 1 quart

6. 2 quarts = 2 gallon

LEVEL C

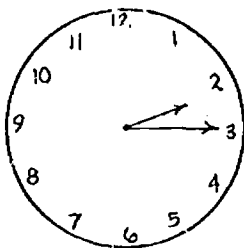
TIME

Skill 1

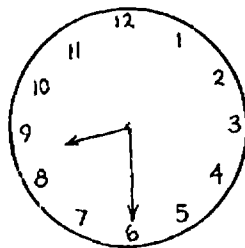
Name _____

Date _____

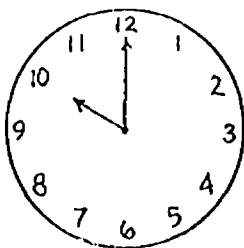
What time does each clock show?



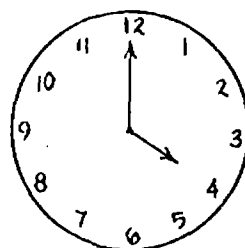
Quarter past 2



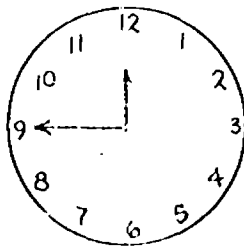
Half past 8



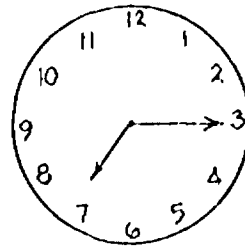
10 o'clock



4 o'clock



Quarter to 12



Quarter past 7

LEVEL C

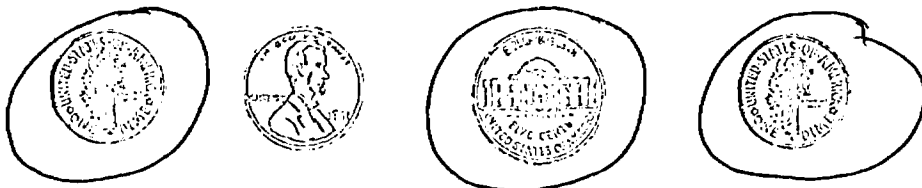
Name _____

MONEY

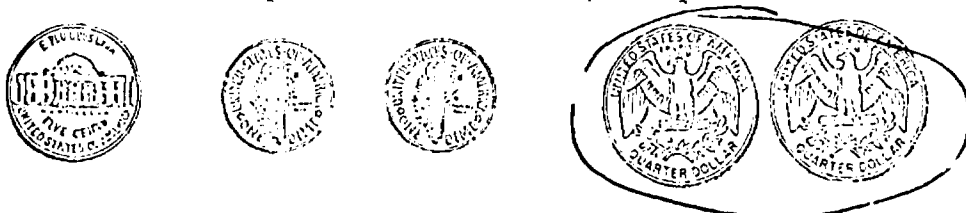
Date _____

Skill 1

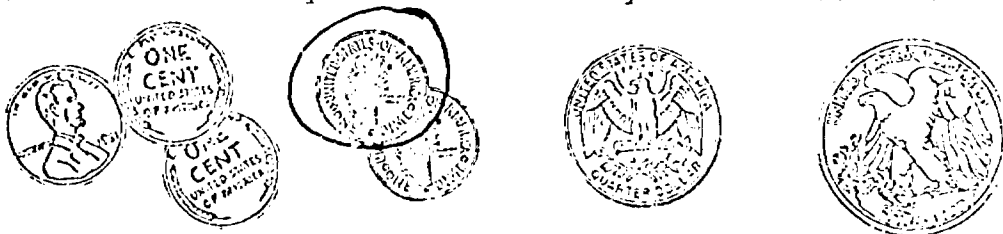
1. Circle the coins you would need to buy a ball for 25¢.



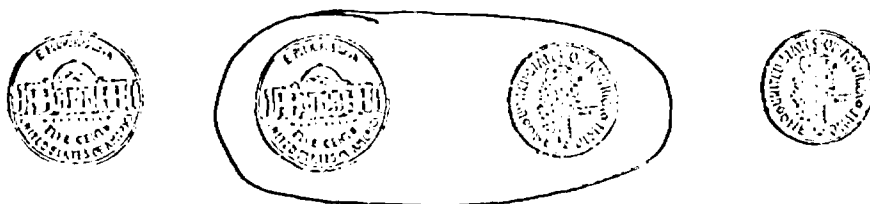
2. Circle the coins you would need to buy a toy truck for 50¢.



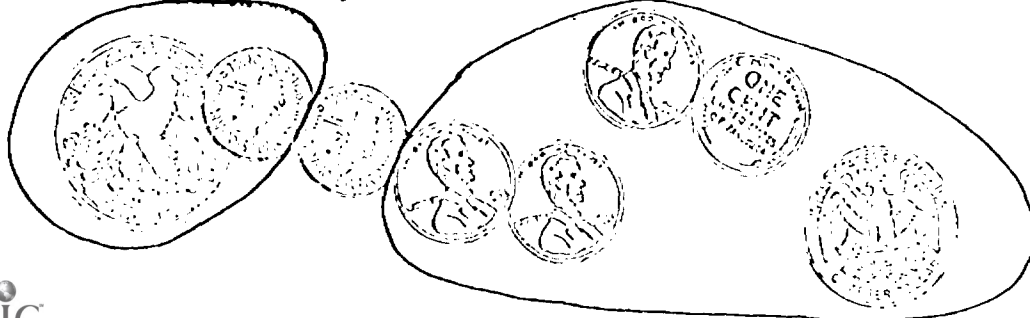
3. Circle the coin you would need to buy a balloon for 10¢.



4. Circle the coins you would need to buy a top for 15¢.



5. Circle the coins you would need to buy a doll for 89¢.



LEVEL C

Name _____

MONEY

Date _____

Skill 2

Find the values of these collections of coins.

1.



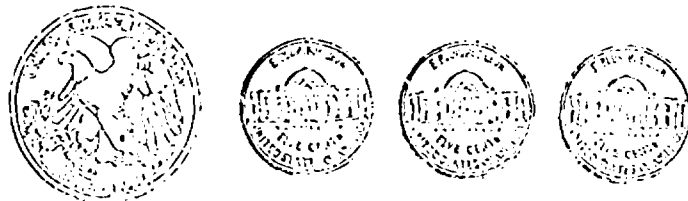
26¢

2.



46¢

3.



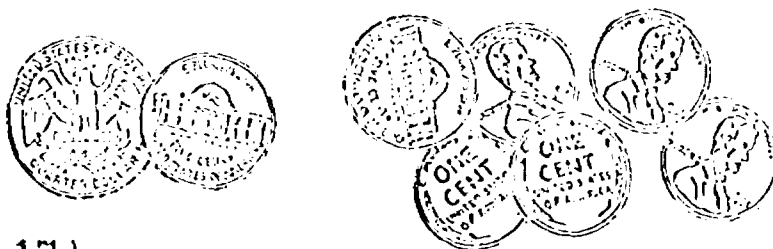
5¢

4.



1¢

5.



40¢

LEVEL C

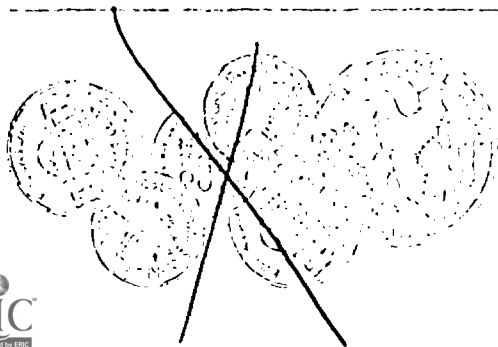
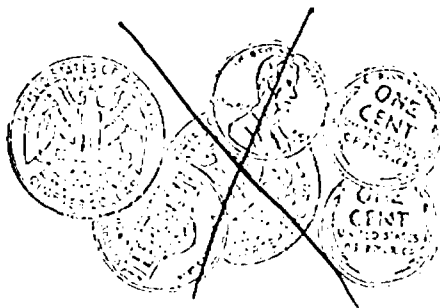
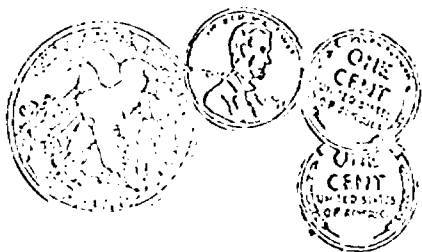
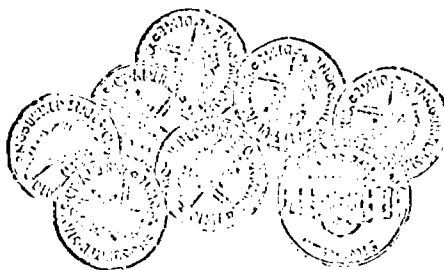
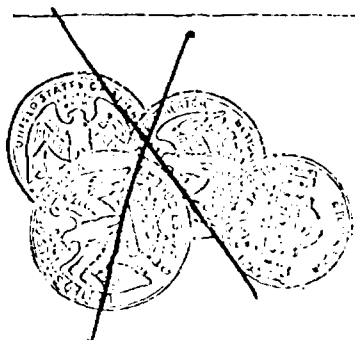
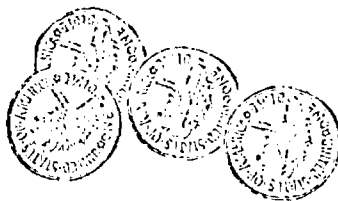
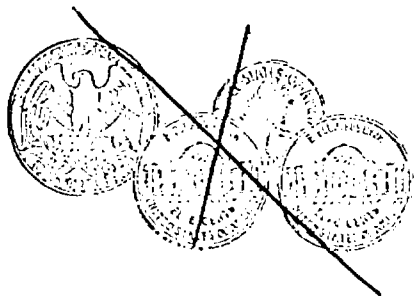
Name _____

MONEY

Date _____

Skill 3

Mark the set of coins that has the greater value.



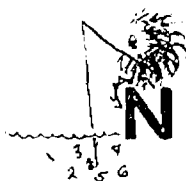
MATHEMATICS CONTINUUM

LEVEL D

BOOK 3

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

LEVEL D
NUMERATION



Review of Level C Skills

C Numeration 1

Develop set notation ({ }) and terminology including subset, cardinal number, digit and numeral.

1. Reads and writes numbers to 9,999. Reads and writes short sequences of numbers from any starting point forward and in reverse (including before, after and in between concepts).
Teacher note: Encourage stating sequences by hundreds and thousands.

2. Completes patterns for skip counting by 10's, 5's and 2's from any starting point, forward and in reverse. Numbers to 1,000.

3. Identifies positional value of digits and writes place value and/or total value in short form or expanded form. Converts number words to numerals.
Teacher note: Practice in scrambled notation should be given.

4. Expresses the relationship between two numbers to 1,000 by using > (greater than), < (less than), and = (equals).

Example

Numeration

Write the numerals to complete this pattern.

98, 99, 100, 101, 102

Write the numerals to complete this pattern.

700, 690, 680, 670, 660

Write a 4-digit numeral.

$2000 + 300 + 50 + 4 = \underline{2354}$

five thousand, two hundred thirty-three = 5233

| | Th | O | H | T |
|------|----|---|---|---|
| 706 | | | | |
| 2460 | | | | |
| 24 | | | | |

Write > , < or = in the \bigcirc .

793 \bigcirc 783

Textual ResourcesNumerationReview

HM Book 3, p. 12
Use orally

HM Book 3, pp. 1-4, 6

1. HM Book 3, pp. 10, 24,
28

2. HM Book 3, p. 18

3. HM Book 3, teacher's
page 26
HM Book 3, pp. 7-9, 20,
25, 29
In-Depth 26, 27, 31

4. HM Book 3, pp. 5, 11,

Related Resources

HM Visuals 3 (1)
HM Masters 3 (1)

HM Visuals 3 (2)

HM Visuals (2)
HM Masters 3 (2, 6)

HM Masters 3 (3)

Notes

LEVEL D

Numeration

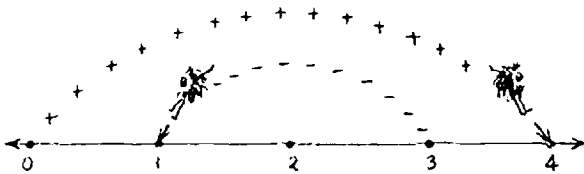
5. Mixed Practice.

6. In-Depth.

Example

Numeration

ADDITION AND SUBTRACTION



Review of Level C Skills

C Add. & Sub. 1
C Add. & Sub. 3

C Add. & Sub. 4
C Add. & Sub. 5
C Add. & Sub. 6
C Add. & Sub. 7
C Add. & Sub. 8
C Add. & Sub. 9
C Add. & Sub. 10

1. Uses the words "sum" and "addend" to label the parts of an addition problem.

2. Finds the missing addend for problems containing three single digit addends using the associative property. Sums to 27.

Addition and Subtraction

Review of addition facts.

Write the word "addend" or "sum" to label the problem.

$$\begin{array}{r} 4 \text{ addend} \\ + 7 \text{ addend} \\ \hline 11 \text{ sum} \end{array}$$

Name the missing addend.

$$2 + \boxed{7} + 8 = 17$$

3
4
+ $\boxed{6}$

13

Textual ResourcesRelated ResourcesNotesNumeration

5. HM Book 3, pp. 13, 19,
21, 30
6. HM Book 3, pp.
222-234, 240-245, 249,
250

HM Masters 3 (4, 6,
7)

HM Visuals 3 (22-25)
HM Masters 3 (58-60,
62)

Addition and Subtraction

| |
|--------|
| Review |
|--------|

- HM Book 3, pp. 32, 33,
36-38, 59
HM Book 3, pp. 94, 95
HM Book 3, p. 102
HM Book 3, pp. 96, 97
HM Book 3, p. 103
HM Book 3, pp. 98, 99
HM Book 3, pp. 100, 101
HM Book 3, p. 39
1. HM Book 3, pp. 34, 35
teacher's page 53
2. HM Book 3, pp. 40-45, 51
In-Depth p. 60, 51

HM Masters 3 (10)

HM Masters 3 (26)

HM Masters 3 (27)
HM Masters 3 (28)
HM Visuals 3 (3)
HM Masters 3 (11)
HM Masters 3 (9)

HM Masters 3 (12-14)

LEVEL D

Addition and Subtraction

3. Does two-place addition with renaming of ones as tens.
4. Does two-place subtraction with renaming of 1 ten as 10 ones.
5. Does two or three-place addition and subtraction problems with no renaming.
6. Does three-place addition of two or more addends with renaming to tens or hundreds place. Sums to 1,000.
7. Does three-place subtraction with renaming from tens or hundreds place.
8. Solves one step word problems involving skills from money, time, measurement and other topics learned to this point.
Teacher note: Introduce the five-step method. See teacher's page 66.
9. Supplies the missing sign, $>$, $<$, $=$ with addition and subtraction expressions.
10. Mixed Practice.

Example

Addition and Subtraction

Add.

$$\begin{array}{r} 27 \\ + 48 \\ \hline 75 \end{array}$$

Subtract.

$$\begin{array}{r} 92 \\ - 47 \\ \hline 45 \end{array}$$

Add or subtract.

$$\begin{array}{r} 479 \\ + 220 \\ \hline 699 \end{array} \quad \begin{array}{r} 987 \\ - 432 \\ \hline 555 \end{array}$$

$$\begin{array}{r} \text{Add.} \quad 260 \\ + 449 \\ \hline 709 \end{array} \quad \begin{array}{r} 263 \\ + 329 \\ \hline 592 \end{array}$$

$$\begin{array}{r} \text{Subtract.} \quad 481 \\ - 237 \\ \hline 244 \end{array}$$

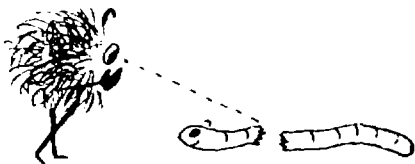
Write $>$, $<$, or $=$ in the \bigcirc .

$$\begin{array}{l} 3 + 6 \bigcirc 4 + 5 \\ 7 > 6, \text{ so } 7 + 2 \bigcirc 6 + 2 \end{array}$$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--|--------------|
| <u>Addition and Subtraction</u> | | |
| 3. HM Book 3, pp. 114, 115, 117, 315 | HM Masters 3 (33) | |
| 4. HM Book 3, pp. 118-120 | HM Masters 3 (34) | |
| 5. HM Book 3, pp. 106-113 | HM Visuals 3 (9, 10) HM Masters 3 (30-32) | |
| 6. HM Book 3, p. 116 In-Depth pp. 180-182, 184, 185, 217, 320, 321 | HM Visuals 3 (17) HM Masters 3 (45-47) | |
| 7. HM Book 3, p. 119 | HM Masters 3 (34) | |
| 8. HM Book 3, 46, 47, 49, 54, 55, 104, 105, 122 In-Depth p. 183 | HM Masters 3 (15, 16, 29) | |
| 9. HM Book 3, p. 53 | | |
| 10. HM Book 3, pp. 52, 56-58, 78, 79, 90, 104, 121, 123, 124, 158, 178, 179 In-Depth pp. 125, 318, 319 | HM Masters 3 (17, 29, 35) | |

LEVEL D

MULTIPLICATION AND DIVISION



1. Groups sets (or pictured sets) into subsets of equal number to complete statements such as, "3 sets of 2 = \square " and " $3 \times 2 = \square$ ". Factors no larger than 5.
2. Uses repeated addition to solve multiplication problems using pictures or a number line. Products to 5×10 .
3. Divides sets (or picture of sets) into subsets of equal number to complete statements such as, " $6 = \square$ sets of 2", and " $6 \div 2 = \square$ ".
4. Uses known multiplication facts to solve related division problems. Products to 5×10 .
Teacher note: Reinforce the commutative principle for multiplication and the inverse operation of multiplication and division.
5. Recognizes the special properties of 0 and 1 when used as factors or divisors.
- *6. Demonstrates oral and written mastery of multiplication and division facts with factors through 5.

Example

Multiplication and Division

Complete the statements.



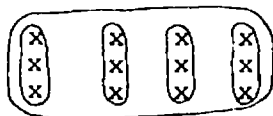
$$2 \text{ sets of } 4 = \boxed{8} ; 2 \times 4 = \boxed{8}$$

Complete each equation.



$$2 + 2 + 2 = \boxed{6} ; 3 \times 2 = \boxed{6}$$

Complete the statements.



$$12 = \boxed{4} \text{ sets of } 3; 12 \div 4 = \boxed{3}$$

$$2 \times 3 = 6, \text{ so } 6 \div 3 = \boxed{2}$$

Zero property

$$0 \times m = 0$$

One property

$$1 \times m = m$$

and

$$m \div 1 = m$$

Textual ResourcesRelated ResourcesNotesMultiplication and Division

1.

2. HM Book 3, pp. 126, 127,
132, 133, 136, 137, 141,
142

HM Visuals 3 (11)

3.

4. HM Book 3, pp. 128-130,
134, 138, 143HM Visuals 3 (12)
HM Masters 3 (36)

5. HM Book 3, p. 145

HM Masters 3 (39)

6. HM Book 3, pp. 146, 157
In-Depth pp. 131, 135,
140, 147, 159HM Masters 3 (37,
38)

LEVEL D

Multiplication and Division

7. Uses the terms "product" and "factor" to describe or label the parts of a multiplication equation.
8. Completes two multiplication statements which together illustrate the commutative principle for multiplication.
9. Solves one step word problems using multiplication or division facts through 5.
10. In-Depth.

Example

Multiplication and Division

Write the word "factor" or "product" to label the problem.

$$\begin{array}{ccccccc} 8 & = & 4 & \times & 2 \\ \swarrow & & \nearrow & & \nwarrow \\ \text{product} & & \text{factor} & & \text{factor} \end{array}$$

$$4 \times 1 = \boxed{1} \times 4$$

How many ears do three dogs have? 6 ears

FRACTIONS



1. Divides a set of identical objects into equivalent parts or identifies a set already divided and assigns a fractional number to compare one or more of the parts with the total set. Sets divided into 2, 3, 4, 5, 6 or 8 parts. Also states that a fractional number means "___ of ___ equal parts".
2. Shades an object or identifies a shaded object for 2, 3, 4, 5, 6 or 8 equivalent parts. Circles or writes the fraction which names the shaded or unshaded region.

Fractions

Circle two-thirds of the set.



Shade $\frac{3}{4}$ of the square.



| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--|--------------|
| <u>Multiplication and Division</u> | | |
| 7. HM Book 3. pp. 127, 128 | HM Visuals 3 (11) | |
| 8. | | |
| 9. HM Book 3, pp. 139, 144, 149 | | |
| 10. HM Book 3, pp. 186, 190-213, 216, 220, 221, 252-277, 279, 282, 296, 297, 322-324, 326-341 | HM Visuals 3 (18-21, 26) HM Masters 3 (49-56, 63-70, 71, 78-80) | |

Fractions

| | | |
|--------------------------------------|----------------------|--|
| 1. HM Book 3, pp. 160 - 162 | HM Visuals 3 (13-16) | |
| 2. HM Book 3, pp. 163, 164, 294, 295 | HM Visuals 3 (13-16) | |

LEVEL D

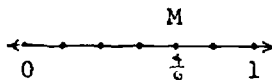
Fractions

3. Identifies a rational number for a given point on a number line.
4. Identifies an equivalent fraction for a given fraction, using pictures.
5. Fills in the missing relation symbols to make a number sentence true (using pictures, rods, or number lines).
6. Adds two fractions with the same denominator in horizontal form with picture aids, number line or rods.
Sums to 1.
7. In-Depth.

Example

Fractions

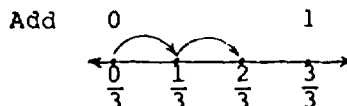
Name the fractional number labeled M on the number line.



Write an equivalent fraction for the shaded part of the bar.



Write $>$, $<$ or $=$ in the \bigcirc .



$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$

NON-METRIC GEOMETRY



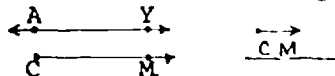
Review of Level C Skills

- C Non-Metric Geometry 1
- C Non-Metric Geometry 2

1. Identifies a ray as a part of a line that has one end point.
Reads " \overrightarrow{AB} " as "ray AB".
Reads " \overleftrightarrow{AB} " as "line AB".

Non-Metric Geometry

Write the name for the ray.



Textual ResourcesRelated ResourcesNotesFractions

3. HM Book 3, p. 165

HM Visuals 3 (13-16)
HM Masters 3 (41)

4. HM Book 3, pp. 168, 169

HM Masters 3 (43)

5. HM Book 3, pp. 170, 171

6. HM Book 3, pp. 172, 173

HM Masters 3 (44)

7. HM Book 3, pp. 166, 167,
176, 177, 187

HM Visuals 3 (13-16)
HM Masters 3 (42)

Non-Metric Geometry

Review

HM Book 3, pp. 62, 63
HM Book 3, p. 67

HM Visuals 3 (4)
HM Masters 3 (19)

1. HM Book 3, pp. 64, 65

HM Visuals 3 (4)
HM Masters 3 (18)

LEVEL D

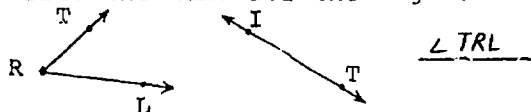
Non-Metric Geometry

2. Identifies an angle as two rays with a common end point (vertex). Reads " $\angle TRL$ " as "angle TRL".
3. Identifies a right angle as a special angle.
4. Distinguishes between a set of points inside, outside or on a closed curve. Identifies part of a plane inside a simple closed curve as a specific region.
5. Identifies models or pictured representations of these solids: sphere, cylinder, cone, rectangular solid and cube. Responds to these words when used in directions.
6. In-Depth.

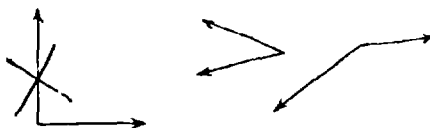
Example

Non-Metric Geometry

Write the name for the angle.



Draw an X on the right angle.



Draw a circle around the point that is in the triangular region.

A.



When given the group of solids from the HM Manipulative Aids Kit, choose the sphere.

Textual ResourcesNon-Metric Geometry

2. HM Book 3, p. 74
3. HM Book 3, pp. 75, 288,
289
4. HM Book 3, pp. 86, 87
5. HM Book 3, pp. 292, 293
6. HM Book 3, pp. 66, 76, 77,
80-85, 88, 89, 91-93, 154,
155, 236-239, 284-287,
290, 291, 310, 311

Related Resources

HM Visuals 3 (8)
HM Masters 3 (24)

HM Masters 3 (73)

HM Visuals 3 (6-8,
24, 27, 28)
HM Masters 3 (21-23,
25, 61, 72)

Notes

LEVEL D

METRIC GEOMETRY



1. Measures lines and lengths of objects to the nearest $\frac{1}{2}$ or $\frac{1}{4}$ inch using a foot ruler. Lengths to 12 inches. Reads "m (AB)" as "the measure of line segment AB".
2. Uses conversion factors of :
1 foot = 12 inches, 3 feet = 36 inches = 1 yard, to solve problems which require such conversions.
Limit of 5 yards.
Teacher note: Use repeated addition for solutions.
3. Uses the equivalent measures of: 2 cups = 1 pint, 2 pints = 1 quart and 4 quarts = 1 gallon, to solve problems which require such conversions.
Limit of 2 gallons.
4. Solves verbal problems which require knowledge of equivalent measures: cups, pints, quarts, gallons, inches, feet, yards.
- *5. Uses a scale to read own weight in pounds.

Example

Metric Geometry

Measure this line to the nearest $\frac{1}{4}$ inch.

_____ $\frac{1}{4}$ inches

Solve the problem.

2 yards = 6 feet

Solve the problem.

1 quart + 2 pints = 4 pints

Textual ResourcesMetric Geometry

1. HM Book 3, pp. 68-71

2. HM Book 3, pp. 72,
214, 215

3. HM Book 3, p. 175

4. HM Book 3, p. 73

5.

Related Resources

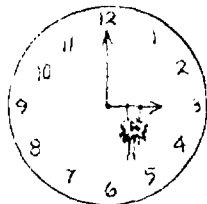
HM Visuals 3 (5)
HM Masters 3 (20)

HM Masters 3 (57)

Notes

LEVEL D

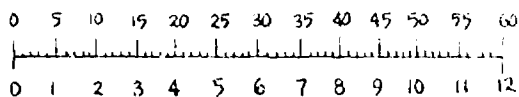
TIME



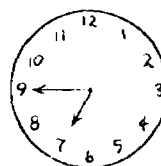
- *1. Uses a number line and clockface to count by 5 minute intervals.
2. Matches clockfaces with given time statements. Times stated in 5 minute intervals. Uses the words, "minutes past", "to" and "o'clock".
3. Supplies the hour and minute hand or draws both hands to show a given time on a clockface. Times to be stated in 5 minute intervals. Uses the words, "minutes past", "to" and "o'clock".
4. States the specified time in words as both _____ minutes past the hour and _____ minutes to the hour when given a clockface.
5. Writes time in "time notation" by 5 minute intervals when given a clockface.

Example

Time



Match the clockface with the correct time.



35 minutes past nine o'clock
15 minutes to seven o'clock

Draw in the hands to make the clockface read:

10 minutes past six o'clock.



This clockface shows the time to be both:

35 minutes past 10 o'clock
or
25 minutes to 11 o'clock.



Write the time shown on the clockface.

2 : 30



Textual ResourcesTime

1.

2.

3.

4. HM Book 3, p. 150

5. HM Book 3, pp. 151, 152

Related ResourcesNotes

LEVEL D

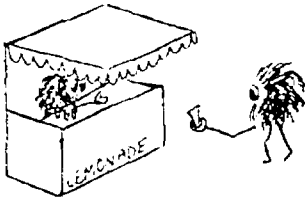
Time

- *6. Practices telling time through the use of verbal (word) problems.
- *7. Tells time by minute intervals.
No mastery test until Level E.
- 8. In-Depth.

Example

Time

MONEY



Review of Level C Skills

C Money 1

- 1. Identifies the dollar and responds to the use of the dollar sign (\$). Finds the value of a dollar or more in other coins.
- 2. Writes money values, up to \$9.99, using words "dollar" and "cents" or signs \$,¢. Writes money values in sums of dollars, dimes and pennies or parts of dollars.
- 3. Adds and subtracts money values in vertical form, using \$ and ¢ signs.

Money

Write the numerals to complete the chart.

| cents | \$ | 10¢ | 1¢ |
|-------|----|-----|----|
| 268 | 2 | 6 | 8 |
| 137 | 1 | 3 | 7 |

Write this amount of money using the \$ sign and the point.

two dollars and seventeen cents \$ 2.17

Add or subtract.

$$\begin{array}{r} \$ 72 \quad 61¢ \\ + 19 \quad - 23 \\ \hline \$ 91 \quad 38¢ \end{array}$$

Textual ResourcesTime

6. HM Book 3, p. 153

7.

8. HM Book 3, p. 251

Related Resources

HM Masters 3 (40)

Notes

MoneyReview

HM Book 3, pp. 14-16

1. HM Book 3, pp. 17, 22

2. HM Book 3, pp. 22, 278

3. HM Book 3, pp. 246, 248
In-Depth p. 247

HM Masters 3 (5)

LEVEL D

Money

4. Solves one and two step verbal and non-verbal problems involving skills learned to this point.
5. Identifies the change in coins which would be received in making purchases.
No mastery test until Level E.

Example

Money

SPECIAL TOPICS



1. Writes Roman numerals for numbers one through twelve.
2. Reads a thermometer and records temperatures using the degree (°) symbol. No temperatures below zero.
3. Uses coordinate pairs to read a simple bar graph.

Special Topics

Write the Roman numerals for these numbers.

2 II

5 VII

Write the temperature shown on the picture of the thermometer.



Read the bar graph and answer the following question.

- a. Who made the highest score on the test?

Textual ResourcesRelated ResourcesNotesMoney

4. HM Book 3, pp. 23, 148
In-Depth p. 280
5. HM Book 3, teacher's
page 315

Special Topics

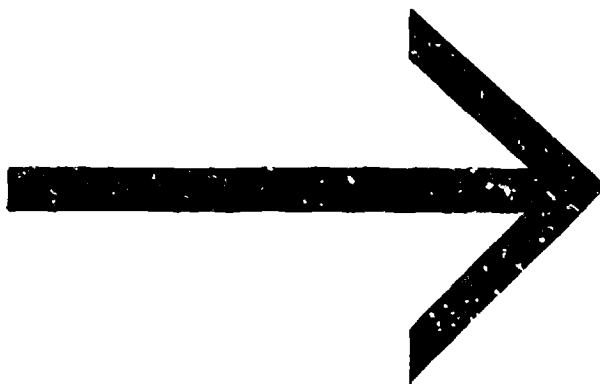
1. HM Book 3, p. 251

2.

3. HM Book 3, pp. 298-304
In-Depth pp. 306, 307

HM Masters 3 (74-76)

LEVEL D
TESTS
and
ANSWER KEYS



LEVEL D

Name _____

NUMERATION

Date _____

Skill 1

Fill in the missing numbers.

1) 372, 373, _____, _____, _____, 377, _____, _____

2) 941, 940, _____, _____, _____, _____, _____, 934

3) _____, 740, 741, _____, _____, _____, _____, 746

4) 401, _____, _____, _____, _____, 396, 395

5) 736, 735, _____, 733, _____, _____, _____, _____

Write the number that comes before, after, or between for each of the following:

1) _____, 670

2) _____, 500

3) 799, _____

4) 397, _____

5) 489, _____, 491

LEVEL D

Name _____

NUMERATION

Date _____

Skill 2

Fill in the missing numbers.

- 1) 30, 40, ____, ____, 70, ____, ____, ____
- 2) 220, 210, 200, ____, ____, ____, ____, 150
- 3) 540, 550, ____, ____, ____, ____, 600, ____
- 4) ____, 690, 685, ____, ____, ____, ____, 660
- 5) 815, ____, ____, ____, ____, 840, 845
- 6) 115, 120, 125, ____, ____, ____, 145, ____
- 7) 393, 395, 397, ____, ____, ____, 405, ____
- 8) 849, 847, ____, ____, ____, ____, 837, ____
- 9) 972, ____, 976, 978, ____, ____, ____, 986
10. 426, 424, ____, ____, ____, ____, 414, ____

LEVEL D

Name _____

NUMERATION

Date _____

Skill 3

Fill the blanks to show the place value of each digit.

1) $486 = \underline{\hspace{1cm}}$ hundreds + $\underline{\hspace{1cm}}$ ones + $\underline{\hspace{1cm}}$ tens

2) $907 = \underline{\hspace{1cm}}$ tens + $\underline{\hspace{1cm}}$ hundreds + $\underline{\hspace{1cm}}$ ones

3) Circle the digit in the hundreds place. 706

4) Circle the digit in the tens place. 819

Write the total value in short form.

5) $2000 + 70 + 500 + 2 = \underline{\hspace{2cm}}$

6) $700 + 3000 + 6 = \underline{\hspace{2cm}}$

Write these numbers in expanded notation.

7) $2432 = \underline{\hspace{4cm}}$

8) $9038 = \underline{\hspace{4cm}}$

Write the numerals for these number words.

9) five thousand, two hundred forty-five $\underline{\hspace{2cm}}$

10) two thousand, seven $\underline{\hspace{2cm}}$

LEVEL D

NUMERATION

Skill 4

Name _____

Date _____

Put an $>$, $<$, or $=$ in the to make a true statement.

1) 419 491

2) 199 199

3) 996 696

4) 313 131

5) 846 964

6) 260 260

7) 286 368

8) 39 49

9) 730 703

10) 585 585

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1, 2, 3, 4

Label the parts using the words "sum" or "addend".

$$\begin{array}{r} 6 \\ +3 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 13 \\ \diagdown \end{array} = \begin{array}{r} 2 \\ \diagdown \end{array} + \begin{array}{r} 3 \\ \diagdown \end{array} + \begin{array}{r} 8 \\ \diagdown \end{array}$$

Find the missing addend.

$$\square + 6 + 3 = 18$$

$$6 + 7 + \square = 14$$

$$\begin{array}{r} 7 \\ \square \\ +8 \\ \hline 15 \end{array}$$

Add or Subtract.

$$\begin{array}{r} 51 \\ -31 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ +68 \\ \hline \end{array}$$

$$\begin{array}{r} 93 \\ -19 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ -59 \\ \hline \end{array}$$

$$\begin{array}{r} 61 \\ +19 \\ \hline \end{array}$$

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5, 6, 7

Add or Subtract.

$$\begin{array}{r} 384 \\ +514 \\ \hline \end{array}$$

$$\begin{array}{r} 512 \\ +321 \\ \hline \end{array}$$

$$\begin{array}{r} 781 \\ -230 \\ \hline \end{array}$$

$$\begin{array}{r} 897 \\ -262 \\ \hline \end{array}$$

$$\begin{array}{r} 456 \\ -212 \\ \hline \end{array}$$

Add .

$$\begin{array}{r} 274 \\ +275 \\ \hline \end{array}$$

$$\begin{array}{r} 389 \\ +430 \\ \hline \end{array}$$

$$\begin{array}{r} 653 \\ +129 \\ \hline \end{array}$$

$$\begin{array}{r} 887 \\ +92 \\ \hline \end{array}$$

$$\begin{array}{r} 332 \\ 146 \\ +209 \\ \hline \end{array}$$

$$\begin{array}{r} 302 \\ 161 \\ +255 \\ \hline \end{array}$$

Subtract .

$$\begin{array}{r} 791 \\ -286 \\ \hline \end{array}$$

$$\begin{array}{r} 451 \\ -170 \\ \hline \end{array}$$

$$\begin{array}{r} 522 \\ -191 \\ \hline \end{array}$$

$$\begin{array}{r} 481 \\ -237 \\ \hline \end{array}$$

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 8

Solve the problems.

1. Jack has 8 boats and his brother has 6. How many more boats has Jack? _____ boats
2. In a big tank there were 7 small tadpoles and 8 large ones. How many tadpoles were there? _____ tadpoles
3. Ruth and Liz scored 80 points together. Betty scored 40 points. What was the total score for the three girls? _____ points
4. If you had 46 football cards and collected 22 more, how many football cards would you have in all? _____ football cards
5. Shirley's favorite television show is 45 minutes long. If 28 minutes have passed, how many minutes are left? _____ minutes.

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 9

Write $>$, $<$, or $=$ in each \bigcirc .

1) $3 + 9 \bigcirc 8 + 4$

2) $15 \bigcirc 7 + 8$

3) $64 \bigcirc 46$

4) $14 - 6 \bigcirc 10 + 2$

$2 \bigcirc 8$, so $42 \bigcirc 43$

LEVEL D

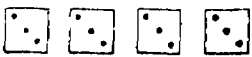
MULTIPLICATION AND DIVISION

Skill 1, 2 (Page 1 of 2 pages)


Name _____

Date _____


Write a numeral in the to complete the statements.

1. 
4 sets of 3 =


$4 \times 3 = \square$

2. 
4 sets of 4 =


$4 \times 4 = \square$

3. 
5 sets of 4 =

$5 \times 4 = \square$

4. 
3 sets of 2 =

$3 \times 2 = \square$

5. 
5 sets of 6 =

$5 \times 6 = \square$

LEVEL D

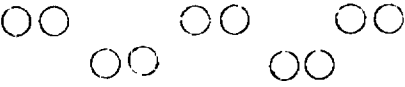
Name _____

MULTIPLICATION AND DIVISION

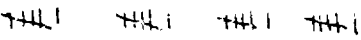
Date _____

Skill 1, 2 (Page 2 of 2 pages)

Complete each equation.

6. 
 $2 + 2 + 2 + 2 + 2 = \square$

$5 \times 2 = \square$

7. 
 $6 + 6 + 6 + 6 = \square$

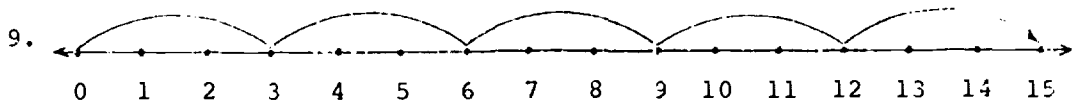
$4 \times 6 = \square$

8.

| | | | |
|---|---|---|---|
| ● | ● | ● | ● |
| ▲ | ▲ | ▲ | ▲ |

$$\begin{array}{r} = 4 \\ = +4 \\ \hline \square \end{array}$$

$4 \times 2 = \square$



$3 + 3 + 3 + 3 + 3 = \square$

$5 \times 3 = \square$

10.

| | | | |
|---|---|---|---|
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |

$$\begin{array}{r} 4 \\ 4 \\ + 4 \\ \hline \square \end{array}$$

$4 \times 3 = \square$

LEVEL D

MULTIPLICATION AND DIVISION

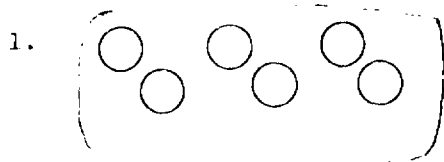
Skill 3, 4 (Page 1 of 2 pages)

Draw a ring around the subsets.

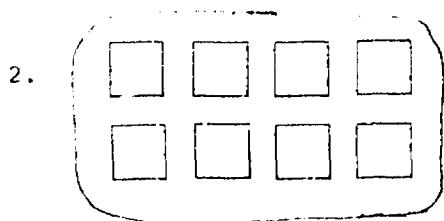
Put the numeral in the .

Name _____

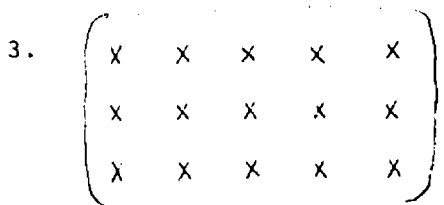
Date _____



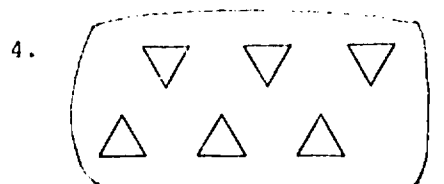
$$6 = \square \text{ sets of } 2$$
$$6 \div 2 = \square, \text{ so } \square \times 2 = 6$$



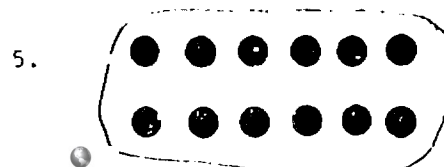
$$8 = \square \text{ sets of } 4$$
$$8 \div 4 = \square, \text{ so } \square \times 4 = 8$$



$$15 = \square \text{ sets of } 5$$
$$15 \div 5 = \square, \text{ so } \square \times 5 = 15$$



$$6 = \square \text{ sets of } 3$$
$$6 \div 3 = \square, \text{ so } \square \times 3 = 6$$



$$12 = \square \text{ sets of } 4$$
$$12 \div 4 = \square, \text{ so } \square \times 4 = 12$$

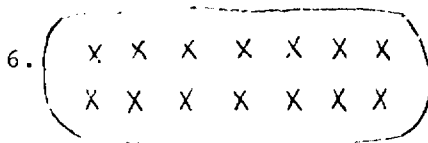
LEVEL D

MULTIPLICATION AND DIVISION

Skill 3, 4 (Page 2 of 2 pages)

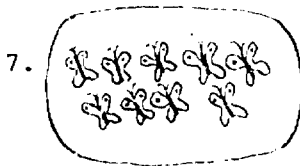
Name _____

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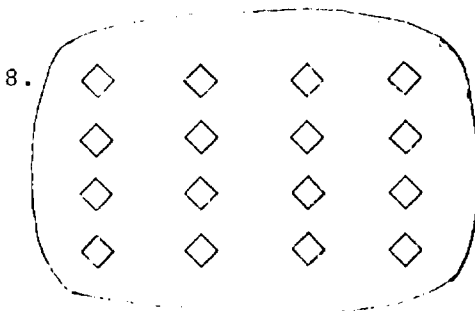
$$14 = \square \text{ sets of } 7$$

$$14 \div 7 = \square, \text{ so } \square \times 7 = 14$$



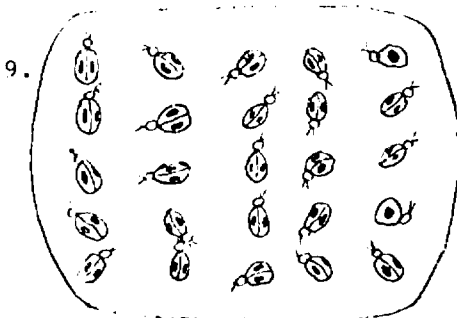
$$9 = \square \text{ sets of } 3$$

$$9 \div 3 = \square, \text{ so } \square \times 3 = 9$$



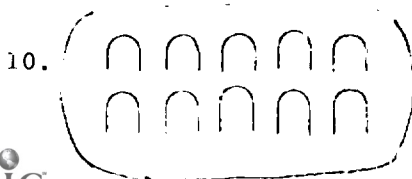
$$16 = \square \text{ sets of } 4$$

$$16 \div 4 = \square, \text{ so } \square \times 4 = 16$$



$$25 = \square \text{ sets of } 5$$

$$25 \div 5 = \square, \text{ so } \square \times 5 = 25$$



$$10 = \square \text{ sets of } 2$$

$$10 \div 2 = \square, \text{ so } \square \times 2 = 10$$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5

Solve the equations.

$3 \times 0 = \square$

$0 \times 3 = \square$

$0 \div 3 = \square$

$4 \times 0 = \square$

$0 \times 4 = \square$

$0 \div 4 = \square$

$8 \times 1 = \square$

$1 \times 8 = \square$

$8 \times 0 = \square$

$8 \div 1 = \square$

$5 \times 1 = \square$

$1 \times 5 = \square$

$1 \times 6 = \square$

$6 \times 1 = \square$

$0 \div 6 = \square$

$6 \div 1 = \square$

$7 \times 1 = \square$

$0 \times 7 = \square$

$7 \div 1 = \square$

$2 \times 1 = \square$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 7

Label the parts.

a) $5 \longrightarrow$ a) _____

b) $\times 4 \longrightarrow$ b) _____

c) $\overline{20} \longrightarrow$ c) _____

a) b) c)

$20 = 5 \times 4$

a) _____

b) _____

c) _____

LEVEL D

MULTIPLICATION AND DIVISION

Skill 8

Name _____

Date _____

Put the numeral in the .

1. $5 \times 6 = \square$

$\square \times 5 = 30$

2. $4 \times 8 = \square$

$8 \times \square = 32$

3. $7 \times 3 = \square$

$\square \times 7 = 21$

4. $9 \times 5 = \square$

$\square \times 9 = 45$

5. $8 \times 5 = \square$

$5 \times \square = 40$

6. $6 \times 4 = \square$

$\square \times 6 = 24$

7. $9 \times 3 = 3 \times \square$

8. $2 \times 8 = \square \times 2$

9. $4 \times 8 = 8 \times \square$

10. $7 \times 4 = \square \times 7$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9 (Page 1 of 2 pages)

Solve these problems. Label.

1. Each of 5 cats had 5 kittens. Five sets of 5 kittens make how many kittens?

2. How many legs do 4 kittens have?

3. Four girls each had 3 dolls. How many dolls did they have in all?

4. How many packs of gum will 30¢ buy, if each pack cost 5¢?

5. There are 3 birds in each of the 6 bird cages in the pet shop. How many birds are there in all?

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9 (Page 2 of 2 pages)

6. There are 7 rooms in the house. There are 4 windows in each room. How many windows are there in the house?

7. The boys have a total of 36 baseball cards. Each of the 4 boys has the same number of baseball cards. How many cards does each boy have?

8. There are 9 girls in the club. If each girl bakes 4 cakes for the cake sale, how many cakes will the club have for the sale?

9. The girls had 40 cookies. They put 4 cookies in each box. How many boxes did they use?

10. Each of 8 boys had 4 model cars. How many cars did they have in all?

LEVEL D

Name _____

FRACTIONS

Date _____

Skill 1

Write the fraction to compare the number of shaded balls with the total number of balls.

1.  _____

2.  _____

3.  _____

4.  _____

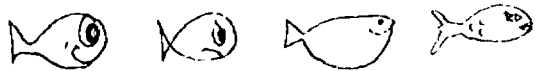
5. Circle $\frac{2}{5}$ of the set.



6. Circle $\frac{1}{3}$ of the set.



7. Circle $\frac{2}{4}$ of the set.



8. Circle $\frac{3}{8}$ of the set.



9. $\frac{2}{4}$ means _____ of _____ equal parts.

10. $\frac{1}{3}$ means _____ of _____ equal parts.

LEVEL D

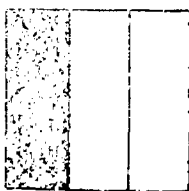
Name _____

FRACTIONS

Date _____

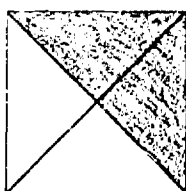
Skill 2

Write the fraction for: a. the shaded region
b. the unshaded region



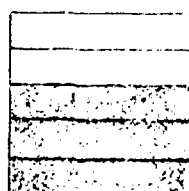
a. _____

b. _____



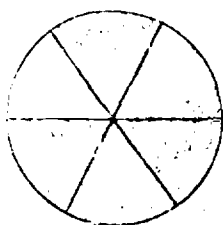
a. _____

b. _____



a. _____

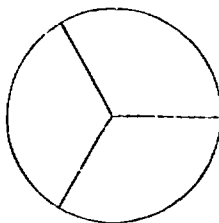
b. _____



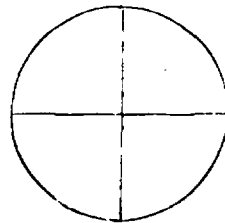
a. _____

b. _____

Shade $\frac{2}{3}$ of
the circle



Shade $\frac{2}{4}$ of
the circle



LEVEL D

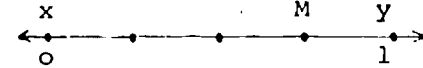
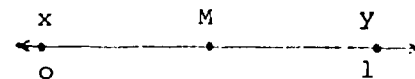
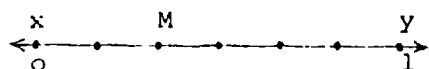
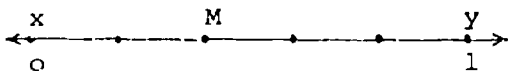
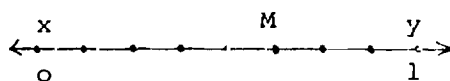
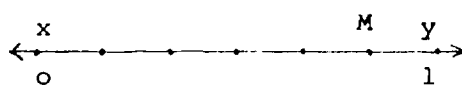
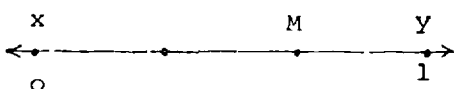
Name _____

FRACTIONS

Date _____

Skill 3

Name the fractional number labeled M on the number line.

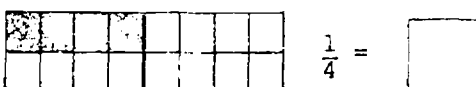
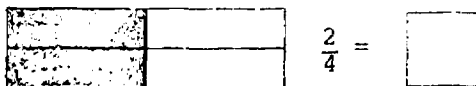
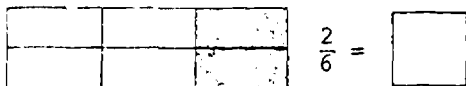
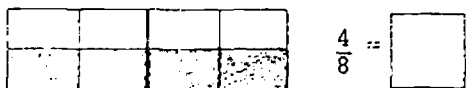


LEVEL D
FRACTIONS

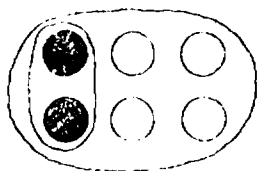
Name _____
Date _____

Skill 4

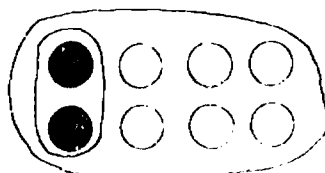
Write an equivalent fraction for the shaded part of each bar.



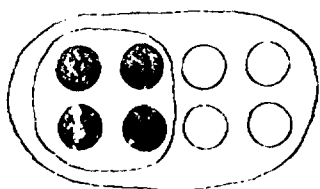
Name the fractional numbers shown by the shaded subsets.



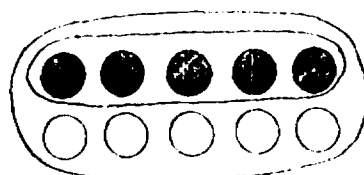
$\frac{1}{3}$ or _____



$\frac{1}{4}$ or _____



$\frac{1}{2}$ or _____



$\frac{1}{2}$ or _____

LEVEL D

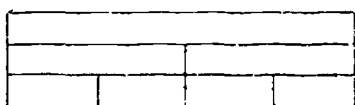
FRACTIONS

SKILL 5

Name _____

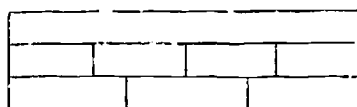
Date _____

Write $>$, $<$, or $=$ in the \bigcirc .



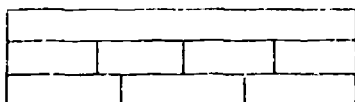
1. $\frac{1}{4} \bigcirc \frac{1}{2}$

2. $\frac{1}{2} \bigcirc \frac{1}{4}$



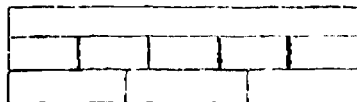
3. $\frac{1}{3} \bigcirc \frac{1}{4}$

4. $\frac{1}{4} \bigcirc \frac{1}{3}$



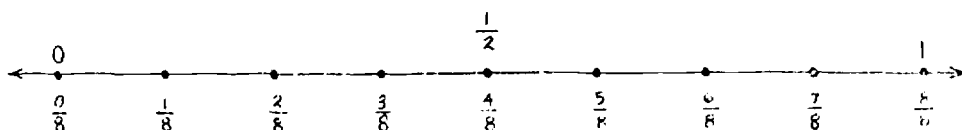
5. $\frac{2}{3} \bigcirc \frac{3}{4}$

6. $\frac{3}{4} \bigcirc \frac{2}{3}$



7. $\frac{4}{5} \bigcirc \frac{2}{3}$

8. $\frac{2}{3} \bigcirc \frac{4}{5}$



9. $\frac{6}{8}$ is to the left of $\frac{7}{8}$, so $\frac{6}{8} \bigcirc \frac{7}{8}$

10. $\frac{4}{8}$ is at the same place as $\frac{1}{2}$, so $\frac{4}{8} \bigcirc \frac{1}{2}$

LEVEL D

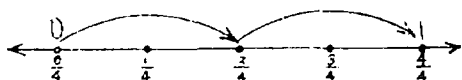
FRACTIONS

Skill 6

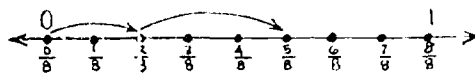
Name _____

Date _____

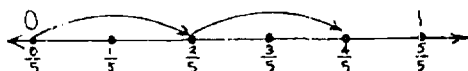
Study the number lines and complete the equations.



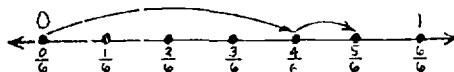
1. $\frac{2}{4} + \frac{2}{4} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$



2. $\frac{2}{8} + \frac{3}{8} = \underline{\hspace{1cm}}$

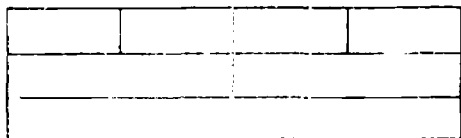


3. $\frac{2}{5} + \frac{2}{5} = \underline{\hspace{1cm}}$



4. $\frac{4}{6} + \frac{1}{6} = \underline{\hspace{1cm}}$

Study the rods and complete the equations.



$\frac{1}{4} + \frac{3}{4} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$

$\frac{2}{4} + \frac{2}{4} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$

$\frac{1}{2} + \frac{1}{2} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$



$\frac{1}{6} + \frac{5}{6} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$

$\frac{3}{6} + \frac{3}{6} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$

$\frac{1}{2} + \frac{1}{2} = \underline{\hspace{1cm}}$ or $\underline{\hspace{1cm}}$

LEVEL D

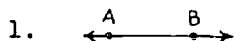
NON-METRIC GEOMETRY

Skill 1, 2

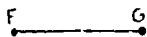
Name _____

Date _____

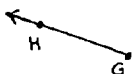
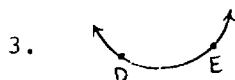
Write the name for each ray.



1. _____



2. _____

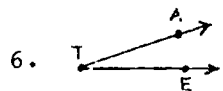


3. _____

4. This symbol \rightarrow means _____.

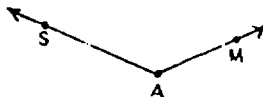
5. This symbol \leftrightarrow means _____.

Write the name for each angle.





8. Name the two rays that make up this angle.



9. The symbol \angle means _____.

LEVEL D

Name _____

NON-METRIC GEOMETRY

Date _____

Skill 3, 4

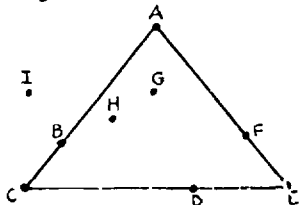
1. Circle the right angles.



2. Put an X on the point that is in the circular region.

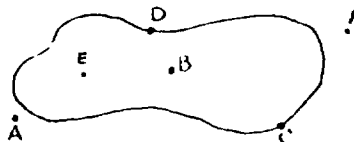


Use this triangle to answer 3 through 7.



3. Name the points on the triangle. _____
4. Name the points in the triangular region. _____
5. Name the corner points of the triangle. _____
6. Join G and H. Is all of GH inside the curve? _____
7. Name the point outside of the curve. _____

Use this curve to answer 8 through 10.



8. Name the points which are inside the curve. _____
9. Name the points which are on the curve. _____
10. Name the points which are outside the curve. _____

LEVEL D

Name _____

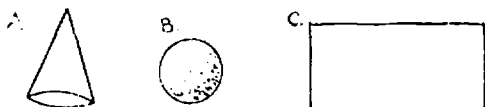
NON-METRIC GEOMETRY

Date _____

Skill 5

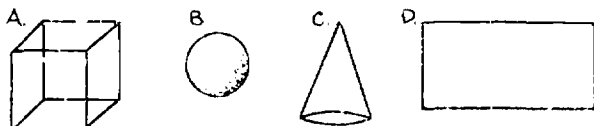
1. Select the picture of a sphere.

1. _____



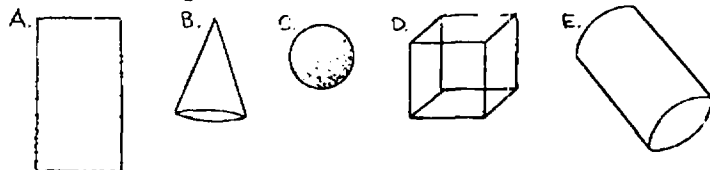
2. Select the picture of a cube.

2. _____



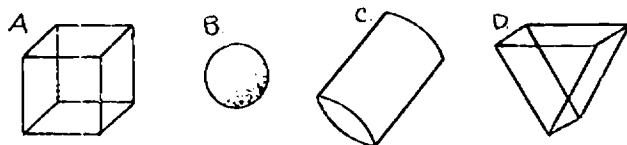
3. Select the picture of a cone.

3. _____



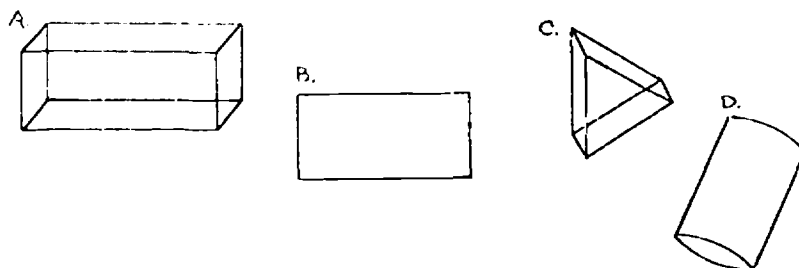
4. Select the picture of a cylinder.

4. _____



5. Select the picture of a rectangular solid.

5. _____



LEVEL D

Name _____

METRIC GEOMETRY

Date _____

Skill 1 (Page 1 of 2 pages)

Measure these lines to the nearest $\frac{1}{2}$ inch. Label.

1.



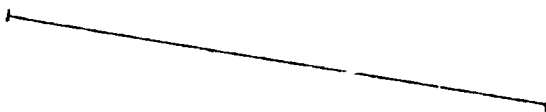
1. _____

2.



2. _____

3.



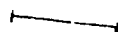
3. _____

4.



4. _____

5.



5. _____

LEVEL D

Name _____

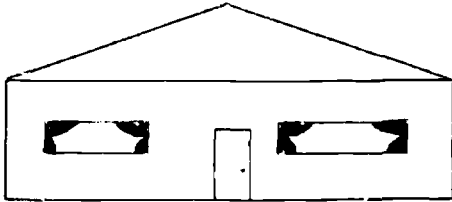
METRIC GEOMETRY

Date _____

Skill 1 (Page 2 of 2 pages)

Use a foot ruler to measure the length of the following to the nearest $\frac{1}{4}$ inch. Label.

1.



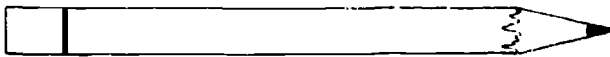
1. _____

2.



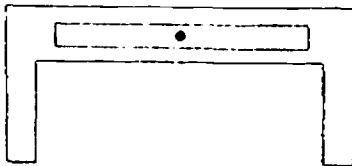
2. _____

3.



3. _____

4.



4. _____

5.



5. _____

LEVEL D

METRIC GEOMETRY

Skill 2

Name _____

Date _____

Solve the problems.

1. 1 foot + 6 inches =

1. _____ inches

2. 1 yard - 2 feet =

2. _____ feet

3. 2 feet + 4 inches =

3. _____ inches

4. 6 feet + 3 feet =

4. _____ yards

5. 1 yard + 11 inches =

5. _____ inches

6. 3 feet + 12 inches =

6. _____ feet

7. 1 foot - 10 inches =

7. _____ inches

8. 1 yard - 12 inches =

8. _____ feet

9. 2 yards + 6 feet =

9. _____ yards

10. 3 yards - 36 inches =

10. _____ yards

LEVEL D

Name _____

METRIC GEOMETRY

Date _____

Skill 3, 4

Solve the problems.

1. 1 quart + 2 pints = 1. _____ pints
2. 1 gallon - 2 quarts = 2. _____ quarts
3. 4 cups + 1 pint = 3. _____ cups
4. 5 quarts + 3 quarts = 4. _____ gallons
5. 2 gallons + 3 quarts = 5. _____ quarts
6. Sally is selling orange juice for 10¢ a cup. What does a quart of orange juice cost?
6. _____
7. Tom drinks a quart of milk each day. He drank 2 cups today. He needs to drink _____ more cups of milk.
8. Susan needs a gallon of ice cream for a party. She has one quart. Susan needs _____ more quarts of ice cream.
9. If each of 6 boys at a birthday party drinks a pint of orange soda, how many quart bottles will be needed? _____
10. Sue bought 2 yards of red material, 2 feet of green and 12 inches of white. She bought _____ yards of material.

LEVEL D

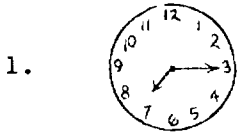
Name _____

TIME

Date _____

Skill 2, 3,

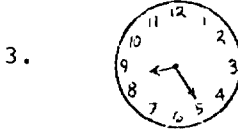
Read the time shown on each clock. Fill in the missing word.



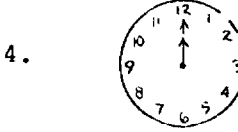
quarter past 7 _____



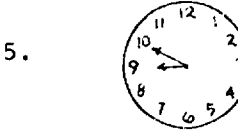
_____ minutes to _____ o'clock



25 minutes _____ 8 _____



_____ o'clock

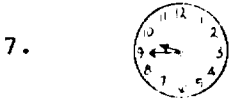


_____ minutes _____ 9 o'clock

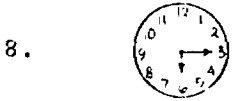
Match the clockfaces with the time statements.



quarter past 6 o'clock



45 minutes past 9 o'clock



5 minutes to 3 o'clock



quarter to 12 o'clock



20 minutes past 4 o'clock

LEVEL D

Name _____

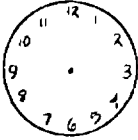
TIME

Date _____

Skill 4, 5

Make the clock tell the time.

1.



8:15

2.



7:35

3.



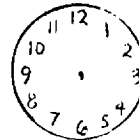
9:40

4.



1:05

5.



10:55

Write the time shown on each clock in time notation.

6.



7.



8.



9.



10.



LEVEL D

Name _____

MONEY

Date _____

Skill 1

1. The value of a dollar is _____ cents.
2. The value of 136¢ is _____ dollar, _____ cents, _____ dimes.
3. How many cents in 2 dollars, 2 dimes and 4 pennies? _____
4. How many cents in 1 dollar, 3 dimes and 6 pennies? _____
5. Complete the chart.

| cents | \$ | 10¢ | 1¢ |
|-------|----|-----|----|
| 236 | 2 | | |
| | 4 | 5 | 6 |
| 39 | 0 | | |
| 167 | 1 | 6 | |
| 98 | | 9 | 8 |
| 642 | 6 | | |

LEVEL D

Name _____

MONEY

Date _____

Skill 2

Write the amount of money using the \$ sign and the point.

1. four dollars and seventeen cents _____

2. six dollars and fifteen cents _____

3. three hundred forty-seven cents _____

4. two dollars and ten cents _____

5. seven dollars and fifty cents _____

Complete the chart.

| Dollars | Dimes | Cents | Using \$ and . |
|---------|-------|-------|----------------|
| 9 | 9 | | \$9.97 |
| 4 | 7 | 6 | |
| 5 | | 2 | \$5.32 |
| | 6 | 8 | \$8.68 |
| 7 | 5 | 3 | |

LEVEL D

Name _____

MONEY

Date _____

Skill 3

Name the sums.

$$\begin{array}{r} \$ 68 \\ +53 \\ \hline \end{array}$$

$$\begin{array}{r} 76¢ \\ +82 \\ \hline \end{array}$$

$$\begin{array}{r} \$ 42 \\ +57 \\ \hline \end{array}$$

$$\begin{array}{r} 83¢ \\ +29 \\ \hline \end{array}$$

$$\begin{array}{r} \$ 54 \\ +66 \\ \hline \end{array}$$

\$ ¢

\$ ¢

\$

Name the missing amounts.

$$\begin{array}{r} \$ 57 \\ -38 \\ \hline \end{array}$$

$$\begin{array}{r} 81¢ \\ - 24 \\ \hline \end{array}$$

$$\begin{array}{r} \$ 33 \\ -16 \\ \hline \end{array}$$

$$\begin{array}{r} \$17 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 71¢ \\ - 27 \\ \hline \end{array}$$

\$ ¢

\$ ¢

¢

LEVEL D

Name _____

MONEY

Date _____

Skill 4

1. Balloons cost 5 for 25¢. What does one balloon cost? _____ ¢
2. Pencils cost 4¢ each. How much will 6 pencils cost? _____ ¢
3. Jane saved 3 dollars, 5 dimes and 8 pennies. How many cents was this.
3. _____ ¢
4. How much for 1 can of peaches if 3 cans cost 99¢? _____ ¢
5. Nancy bought a dress for \$5.98 and a blouse for \$3.50. How much did Nancy spend?

5. \$ _____

LEVEL D

Name _____

SPECIAL TOPICS

Date _____

Skill 1

Write the Roman numerals for the following.

6 = _____

10 = _____

3 = _____

4 = _____

7 = _____

5 = _____

Write these Roman numerals in our kind of numerals.

VIII = _____

XII = _____

II = _____

IX = _____

LEVEL D

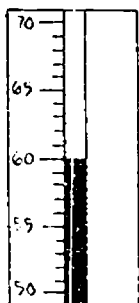
Name _____

SPECIAL TOPICS

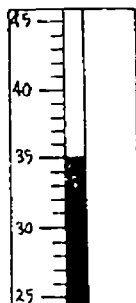
Date _____

Skill 2

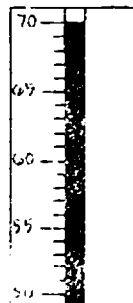
Write the temperature shown on the picture of the thermometer. Use the degree (°) symbol.



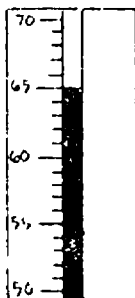
1. _____



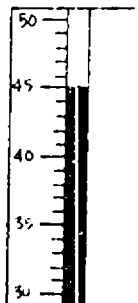
2. _____



3. _____



4. _____



5. _____

LEVEL D

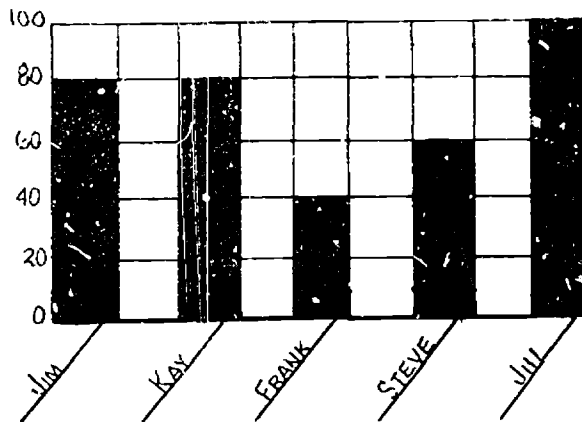
Name _____

SPECIAL TOPICS

Date _____

Skill 3

Read the bar graph and answer the following questions.



1. Who made the highest score on the test? 1. _____
2. Who made the lowest score on the test? 2. _____
3. What was Jim's score? 3. _____
4. Who made the score of 60? 4. _____
5. How much higher was Kay's score than Frank's? 5. _____

LEVEL D

Name _____

NUMERATION

Date _____

Skill 1

Fill in the missing numbers.

1) 372, 373, 374, 375, 376, 377, 378, 379

2) 941, 940, 939, 938, 937, 936, 935, 934

3) 739, 740, 741, 742, 743, 744, 745, 746

4) 401, 400, 399, 398, 397, 396, 395

5) 736, 735, 734, 733, 732, 731, 730, 729

Write the number that comes before, after, or between for each of the following.

1) 669, 670

2) 447, 500

3) 799, 800

4) 397, 398

5) 489, 490, 491

LEVEL D

Name _____

NUMERATION

Date _____

Skill 2

Fill in the missing numbers.

1) 30, 40, 50, 60, 70, 80, 90, 100

2) 220, 210, 200, 190, 180, 170, 160, 150

3) 540, 550, 560, 570, 580, 590, 600, 610

4) 695, 690, 685, 680, 675, 670, 665, 660

5) 815, 820, 825, 830, 835, 840, 845

6) 115, 120, 125, 130, 135, 140, 145, 150

7) 393, 395, 397, 399, 401, 403, 405, 407

8) 849, 847, 845, 843, 841, 839, 837, 835

9) 972, 974, 976, 978, 980, 982, 984, 986

10. 426, 424, 422, 420, 418, 416, 414, 412

LEVEL D

Name _____

NUMERATION

Date _____

Skill 3

Fill the blanks to show the place value of each digit.

1) $486 = \underline{4}$ hundreds + $\underline{6}$ ones + $\underline{8}$ tens

2) $907 = \underline{0}$ tens + $\underline{9}$ hundreds + $\underline{7}$ ones

3) Circle the digit in the hundreds place.

706

4) Circle the digit in the tens place.

819

Write the total value in short form.

5) $2000 + 70 + 500 + 2 = \underline{2572}$

6) $700 + 3000 + 6 = \underline{3706}$

Write these numbers in expanded notation.

7) $2432 = \underline{2000 + 400 + 30 + 2}$

8) $9038 = \underline{9000 + 30 + 8}$

Write the numerals for these number words.

9) five thousand, two hundred forty-five 5245

10) two thousand, seven 2007

LEVEL D

NUMERATION

Skill 4

Name _____

Date _____

Put an $>$, $<$, or $=$ in the \bigcirc to make a true statement.

1) 419 \bigcirc 491

2) 199 \bigcirc 199

3) 996 \bigcirc 696

4) 313 \bigcirc 131

5) 846 \bigcirc 964

6) 260 \bigcirc 260

7) 286 \bigcirc 368

8) 39 \bigcirc 49

9) 730 \bigcirc 703

10) 585 \bigcirc 585

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1, 2, 3, 4

Label the parts using the words "sum" or "addend".

6 addend
 +3 addend

 9 sum

13 = 2 + 3 + 8
Sum addend addend addend

Find the missing addend.

$$\boxed{9} + 6 + 3 = 18$$

$$6 + 7 + \boxed{1} = 14$$

$$\begin{array}{r} 7 \\ \boxed{0} \\ +8 \\ \hline 15 \end{array}$$

Add or Subtract.

$$\begin{array}{r} 51 \\ -31 \\ \hline 20 \end{array}$$

$$\begin{array}{r} 28 \\ +68 \\ \hline 96 \end{array}$$

$$\begin{array}{r} 93 \\ -19 \\ \hline 74 \end{array}$$

$$\begin{array}{r} 88 \\ -59 \\ \hline 29 \end{array}$$

$$\begin{array}{r} 61 \\ +19 \\ \hline 80 \end{array}$$

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5, 6, 7

Add or Subtract.

$$\begin{array}{r} 384 \\ +514 \\ \hline 898 \end{array}$$

$$\begin{array}{r} 512 \\ +321 \\ \hline 833 \end{array}$$

$$\begin{array}{r} 781 \\ -230 \\ \hline 551 \end{array}$$

$$\begin{array}{r} 897 \\ -262 \\ \hline 635 \end{array}$$

$$\begin{array}{r} 456 \\ -212 \\ \hline 244 \end{array}$$

Add.

$$\begin{array}{r} 274 \\ +275 \\ \hline 549 \end{array}$$

$$\begin{array}{r} 389 \\ +430 \\ \hline 819 \end{array}$$

$$\begin{array}{r} 653 \\ +129 \\ \hline 782 \end{array}$$

$$\begin{array}{r} 887 \\ +92 \\ \hline 979 \end{array}$$

$$\begin{array}{r} 332 \\ 146 \\ +209 \\ \hline 687 \end{array}$$

$$\begin{array}{r} 302 \\ 161 \\ +255 \\ \hline 718 \end{array}$$

Subtract.

$$\begin{array}{r} 791 \\ -286 \\ \hline 505 \end{array}$$

$$\begin{array}{r} 451 \\ -170 \\ \hline 281 \end{array}$$

$$\begin{array}{r} 522 \\ -191 \\ \hline 331 \end{array}$$

$$\begin{array}{r} 481 \\ -237 \\ \hline 244 \end{array}$$

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 8

Solve the problems.

1. Jack has 8 boats and his brother has 6. How many more boats has Jack? 2 boats
2. In a big tank there were 7 small tadpoles and 8 large ones. How many tadpoles were there? 15 tadpoles
3. Ruth and Liz scored 80 points together. Betty scored 40 points. What was the total score for the three girls? 120 points
4. If you had 46 football cards and collected 22 more, how many football cards would you have in all? 68 football cards
5. Shirley's favorite television show is 45 minutes long. If 28 minutes have passed, how many minutes are left? 17 minutes.

LEVEL D

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 9

Write $>$, $<$, or $=$ in each \bigcirc .

- 1) $3 + 9$ $(=)$ $8 + 4$
- 2) 15 $(=)$ $7 + 8$
- 3) 64 $(>)$ 46
- 4) $14 - 6$ $(<)$ $10 + 2$
- 5) 2 $(<)$ 8 , so 42 $(<)$ 48

LEVEL D

Name _____

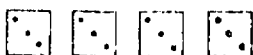
MULTIPLICATION AND DIVISION

Date _____

Skill 1, 2 (Page 1 of 2 pages)

Write a numeral in the to complete the statements.

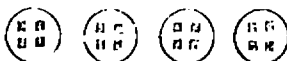
1.



4 sets of 3 =

$4 \times 3 =$

2.



4 sets of 4 =

$4 \times 4 =$

3.



5 sets of 4 =

$5 \times 4 =$

4.



3 sets of 2 =

$3 \times 2 =$

5.



5 sets of 6 =

$5 \times 6 =$

LEVEL D

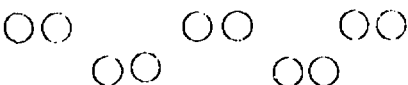
Name _____

MULTIPLICATION AND DIVISION

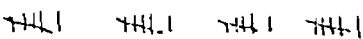
Date _____

Skill 1, 2 (Page 2 of 2 pages)

Complete each equation.

6. 
 $2 + 2 + 2 + 2 + 2 = \boxed{10}$

$5 \times 2 = \boxed{10}$

7. 
 $6 + 6 + 6 + 6 = \boxed{24}$

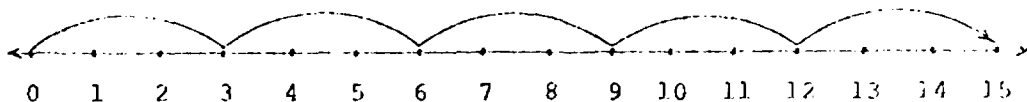
$4 \times 6 = \boxed{24}$

8.

| | | | |
|---|---|---|---|
| ○ | ○ | ○ | ○ |
| △ | △ | △ | △ |

 $= 4$
 $= +4$
 $\boxed{8}$

$4 \times 2 = \boxed{8}$

9. 
 $3 + 3 + 3 + 3 + 3 = \boxed{15}$

$5 \times 3 = \boxed{15}$

10.

| | | | |
|---|---|---|---|
| c | c | c | c |
| c | c | c | c |
| v | c | c | c |

 4
 4
 4
 $\boxed{12}$

$4 \times 3 = \boxed{12}$

LEVEL D

MULTIPLICATION AND DIVISION

Skill 3, 4 (Page 1 of 2 pages)

Name _____

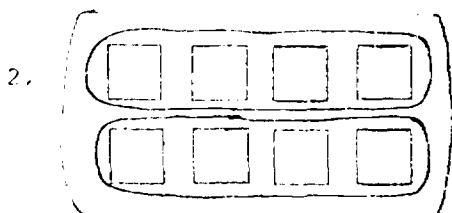
Date _____

Draw a ring around the subsets.

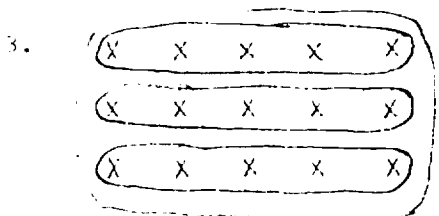
Put the numeral in the .



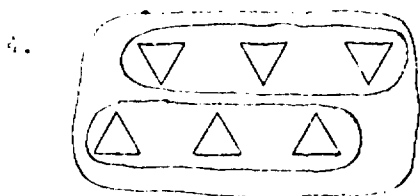
$$6 = \boxed{3} \text{ sets of } 2$$
$$6 \div 2 = \boxed{3}, \text{ so } \boxed{3} \times 2 = 6$$



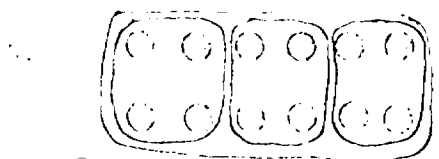
$$8 = \boxed{2} \text{ sets of } 4$$
$$8 \div 4 = \boxed{2}, \text{ so } \boxed{2} \times 4 = 8$$



$$15 = \boxed{3} \text{ sets of } 5$$
$$15 \div 5 = \boxed{3}, \text{ so } \boxed{3} \times 5 = 15$$



$$6 = \boxed{2} \text{ sets of } 3$$
$$6 \div 3 = \boxed{2}, \text{ so } \boxed{2} \times 3 = 6$$



$$12 = \boxed{3} \text{ sets of } 4$$
$$12 \div 4 = \boxed{3}, \text{ so } \boxed{3} \times 4 = 12$$

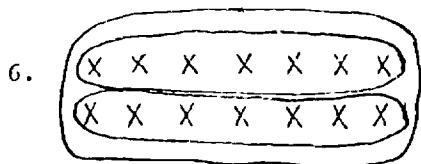
LEVEL D

MULTIPLICATION AND DIVISION

Skill 3, 4 (Page 2 of 2 pages)

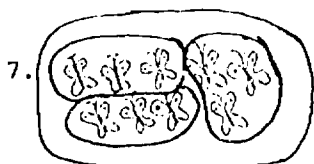
Name _____

Date _____



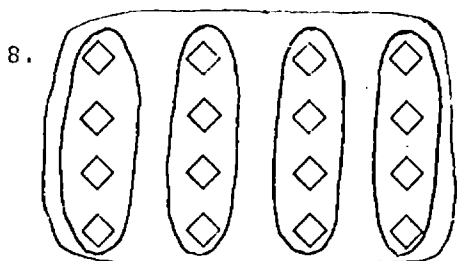
$$14 = \boxed{2} \text{ sets of } 7$$

$$14 \div 7 = \boxed{2}, \text{ so } \boxed{2} \times 7 = 14$$



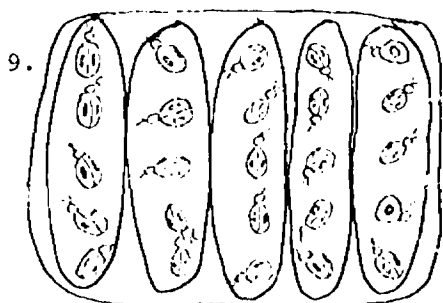
$$9 = \boxed{3} \text{ sets of } 3$$

$$9 \div 3 = \boxed{3}, \text{ so } \boxed{3} \times 3 = 9$$



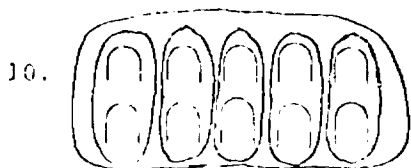
$$16 = \boxed{4} \text{ sets of } 4$$

$$16 \div 4 = \boxed{4}, \text{ so } \boxed{4} \times 4 = 16$$



$$25 = \boxed{5} \text{ sets of } 5$$

$$25 \div 5 = \boxed{5}, \text{ so } \boxed{5} \times 5 = 25$$



$$10 = \boxed{5} \text{ sets of } 2$$

$$10 \div 2 = \boxed{5}, \text{ so } \boxed{5} \times 2 = 10$$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5

Solve the equations.

$3 \times 0 = \boxed{0}$

$0 \times 3 = \boxed{0}$

$0 \div 3 = \boxed{0}$

$4 \times 0 = \boxed{0}$

$0 \times 4 = \boxed{0}$

$0 \div 4 = \boxed{0}$

$8 \times 1 = \boxed{8}$

$1 \times 8 = \boxed{8}$

$8 \times 0 = \boxed{0}$

$8 \div 1 = \boxed{8}$

$5 \times 1 = \boxed{5}$

$1 \times 5 = \boxed{5}$

$1 \times 6 = \boxed{6}$

$6 \times 1 = \boxed{6}$

$0 \div 6 = \boxed{0}$

$6 \div 1 = \boxed{6}$

$7 \times 1 = \boxed{7}$

$0 \times 7 = \boxed{0}$

$7 \div 1 = \boxed{7}$

$2 \times 1 = \boxed{2}$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 7

Label the parts.

a) 5 -----> a) factor

b) $\times 4$ -----> b) factor

c) 20 -----> c) product

a) b) c)

$20 = 5 \times 4$

a) product

b) factor

c) factor

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 8

Put the numeral in the .

1. $5 \times 6 = \boxed{30}$

$\boxed{6} \times 5 = 30$

2. $4 \times 8 = \boxed{32}$

$8 \times \boxed{4} = 32$

3. $7 \times 3 = \boxed{21}$

$\boxed{3} \times 7 = 21$

4. $9 \times 5 = \boxed{45}$

$\boxed{5} \times 9 = 45$

5. $8 \times 5 = \boxed{40}$

$5 \times \boxed{8} = 40$

6. $6 \times 4 = \boxed{24}$

$\boxed{4} \times 6 = 24$

7. $9 \times 3 = 3 \times \boxed{9}$

8. $2 \times 8 = \boxed{8} \times 2$

9. $4 \times 8 = 8 \times \boxed{4}$

10. $7 \times 4 = \boxed{4} \times 7$

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9 (Page 1 of 2 pages)

Solve these problems. Label.

1. Each of 5 cats had 5 kittens. Five sets of 5 kittens make how many kittens?

25 kittens

2. How many legs do 4 kittens have?

16 legs

3. Four girls each had 3 dolls. How many dolls did they have in all?

12 dolls

4. How many packs of gum will 30¢ buy, if each pack cost 5¢?

6 packs

5. There are 3 birds in each of the 6 bird cages in the pet shop. How many birds are there in all?

18 birds

LEVEL D

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9 (Page 2 of 2 pages)

6. There are 7 rooms in the house. There are 4 windows in each room. How many windows are there in the house?

28 windows

7. The boys have a total of 36 baseball cards. Each of the 4 boys has the same number of baseball cards. How many cards does each boy have?

9 cards

8. There are 9 girls in the club. If each girl bakes 4 cakes for the cake sale, how many cakes will the club have for the sale?

36 cakes

9. The girls had 40 cookies. They put 4 cookies in each box. How many boxes did they use?

10 boxes

10. Each of 8 boys had 4 model cars. How many cars did they have in all?

32 cars 249

LEVEL D

Name _____

FRACTIONS

Date _____

Skill 1

Write the fraction to compare the number of shaded balls with the total number of balls.



$\frac{2}{5}$



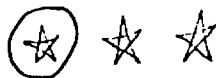
$\frac{1}{4}$



5. Circle $\frac{2}{5}$ of the set.



6. Circle $\frac{1}{3}$ of the set.



7. Circle $\frac{2}{4}$ of the set.



8. Circle $\frac{3}{8}$ of the set.



9. $\frac{2}{4}$ means 2 of 4 equal parts.

10. $\frac{1}{3}$ means 1 of 3 equal parts.

LEVEL D

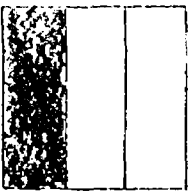
Name _____

FRACTIONS

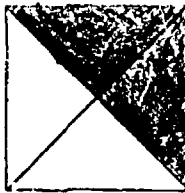
Date _____

Skill 2

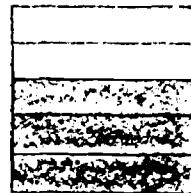
Write the fraction for: a. the shaded region
b. the unshaded region



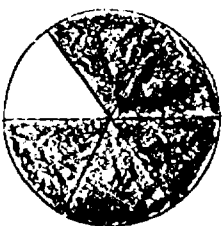
a. $\frac{1}{3}$
b. $\frac{2}{3}$



a. $\frac{2}{4}$
b. $\frac{2}{4}$

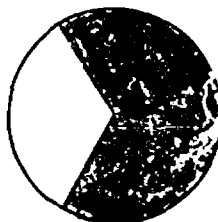


a. $\frac{3}{5}$
b. $\frac{2}{5}$

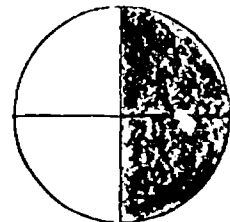


a. $\frac{5}{6}$
b. $\frac{1}{6}$

Shade $\frac{2}{3}$ of
the circle



Shade $\frac{2}{4}$ of
the circle



LEVEL D

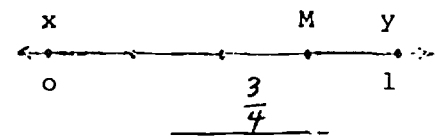
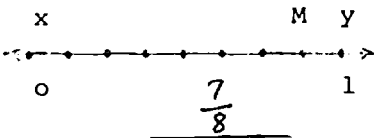
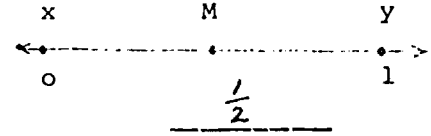
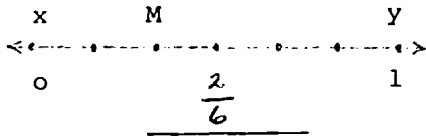
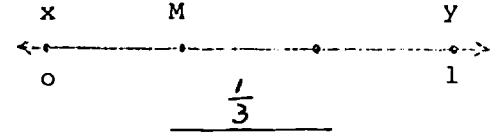
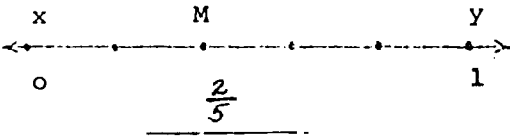
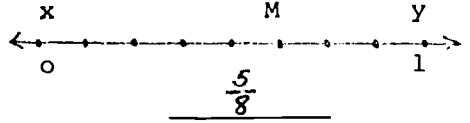
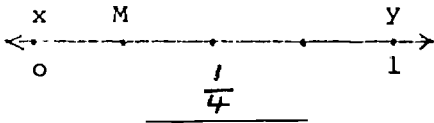
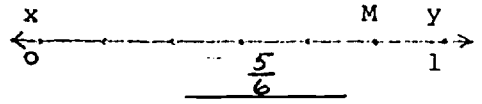
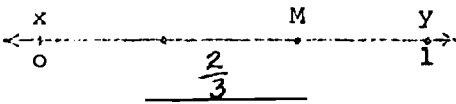
FRACTIONS

Skill 3

Name _____

Date _____

Name the fractional number labeled M on the number line.

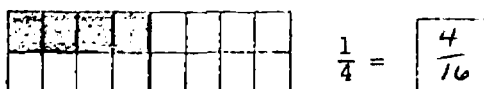
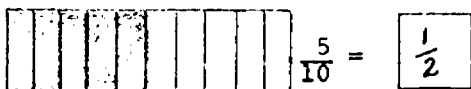
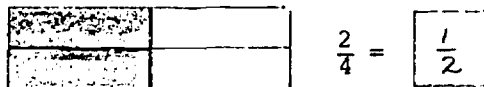
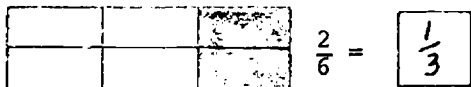
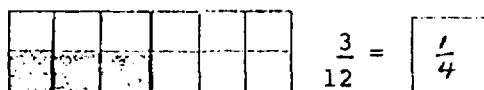


LEVEL D
FRACTIONS

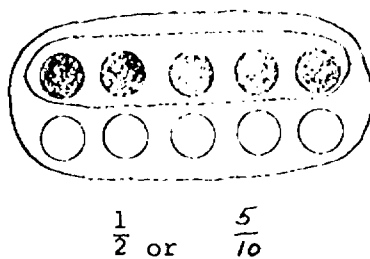
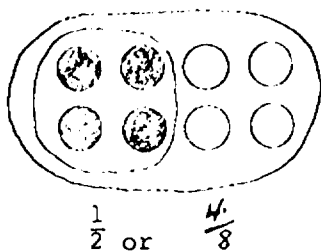
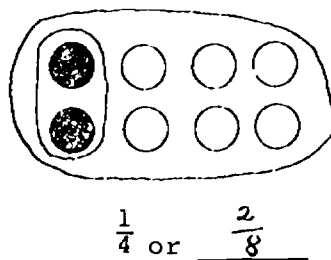
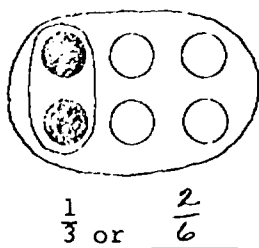
Name _____
Date _____

Skill 4

Write an equivalent fraction for the shaded part of each bar.



Name the fractional numbers shown by the shaded subsets.



LEVEL D

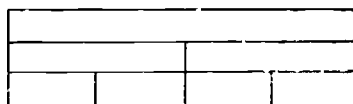
FRACTIONS

Skill 5

Name _____

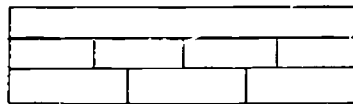
Date _____

Write $>$, $<$, or $=$ in the \bigcirc .



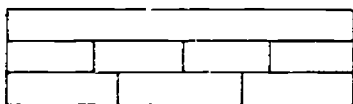
1. $\frac{1}{4} \bigcirc \frac{1}{2}$

2. $\frac{1}{2} \bigcirc \frac{1}{4}$



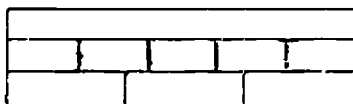
3. $\frac{1}{3} \bigcirc \frac{1}{4}$

4. $\frac{1}{4} \bigcirc \frac{1}{3}$



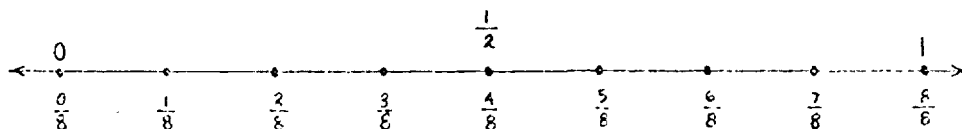
5. $\frac{2}{3} \bigcirc \frac{3}{4}$

6. $\frac{3}{4} \bigcirc \frac{2}{3}$



7. $\frac{4}{5} \bigcirc \frac{2}{3}$

8. $\frac{2}{3} \bigcirc \frac{4}{5}$



9. $\frac{6}{8}$ is to the left of $\frac{7}{8}$, so $\frac{6}{8} \bigcirc \frac{7}{8}$

10. $\frac{4}{8}$ is at the same place as $\frac{1}{2}$, so $\frac{4}{8} \bigcirc \frac{1}{2}$

LEVEL D

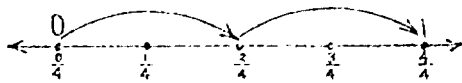
Name _____

FRACTIONS

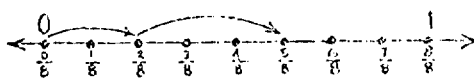
Date _____

Skill 6

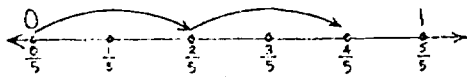
Study the number lines and complete the equations.



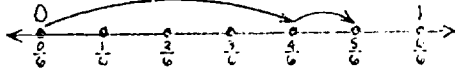
1. $\frac{2}{4} + \frac{2}{4} = \underline{\frac{4}{4}}$ or $\underline{1}$



2. $\frac{2}{8} + \frac{3}{8} = \underline{\frac{5}{8}}$

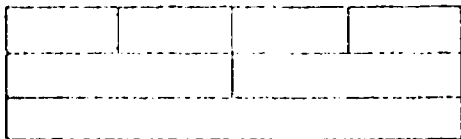


3. $\frac{2}{5} + \frac{2}{5} = \underline{\frac{4}{5}}$



4. $\frac{4}{6} + \frac{1}{6} = \underline{\frac{5}{6}}$

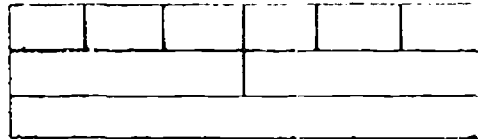
Study the rods and complete the equations.



$\frac{1}{4} + \frac{3}{4} = \underline{\frac{4}{4}}$ or $\underline{1}$

$\frac{2}{4} + \frac{2}{4} = \underline{\frac{4}{4}}$ or $\underline{1}$

$\frac{1}{2} + \frac{1}{2} = \underline{\frac{2}{2}}$ or $\underline{1}$



$\frac{1}{6} + \frac{5}{6} = \underline{\frac{6}{6}}$ or $\underline{1}$

$\frac{3}{6} + \frac{3}{6} = \underline{\frac{6}{6}}$ or $\underline{1}$

$\frac{1}{2} + \frac{1}{2} = \underline{\frac{2}{2}}$ or $\underline{1}$

LEVEL D

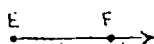
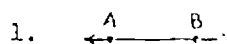
Name _____

NON-METRIC GEOMETRY

Date _____

Skill 1, 2

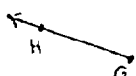
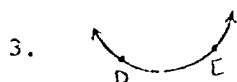
Write the name for each ray.



1. \vec{EF}



2. \vec{AB}

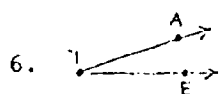


3. \vec{GH}

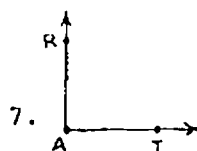
4. This symbol \rightarrow means ray.

5. This symbol \leftrightarrow means line.

Write the name for each angle.

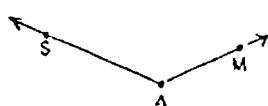


$\angle ATE$ or $\angle ETA$



$\angle TAR$ or $\angle RAT$

8. Name the two rays that make up this angle.



\vec{AS} \vec{AM}

9. The symbol \angle means angle.

LEVEL D

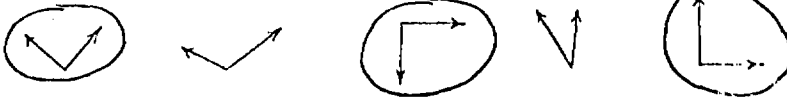
Name _____

NON-METRIC GEOMETRY

Date _____

Skill 3, 4

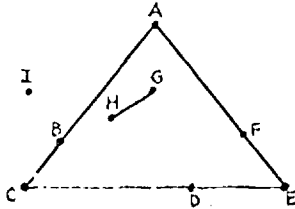
1. Circle the right angles.



2. Put an X on the point that is in the circular region.

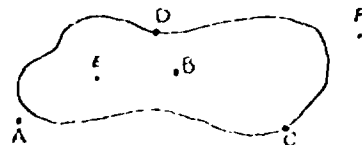


Use this triangle to answer 3 through 7.



3. Name the points on the triangle. ABC DEF
4. Name the points in the triangular region. GH
5. Name the corner points of the triangle. A CE
6. Join G and H. Is all of GH inside the curve? yes
7. Name the point outside of the curve. I

Use this curve to answer 8 through 10.



8. Name the points which are inside the curve. BE
9. Name the points which are on the curve. CD
10. Name the points which are outside the curve. AF

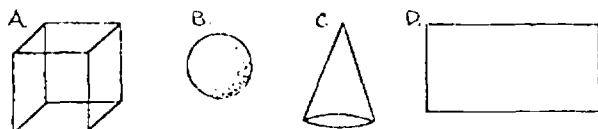
Skill 5

1. Select the picture of a sphere.



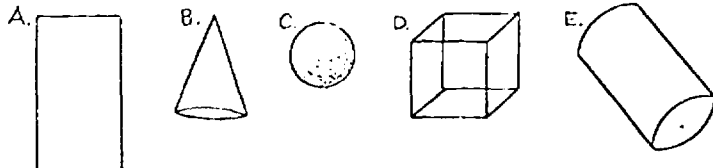
1. B

2. Select the picture of a cube.



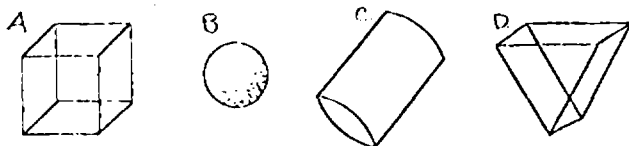
2. A

3. Select the picture of a cone.



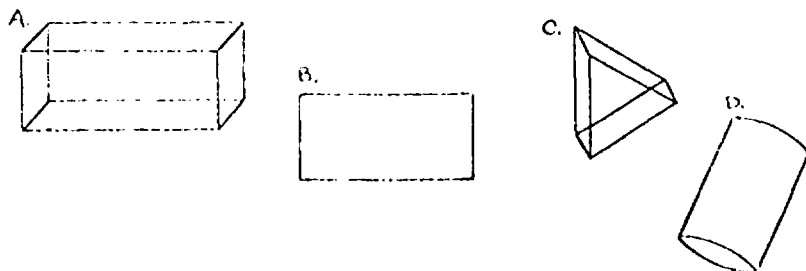
3. B

4. Select the picture of a cylinder.



4. C

5. Select the picture of a rectangular solid.



5. A

LEVEL D

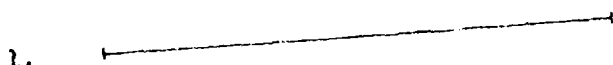
Name _____

METRIC GEOMETRY

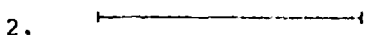
Date _____

Skill 1 (Page 1 of 2 pages)

Measure these lines to the nearest $\frac{1}{2}$ inch. Label.



1. 3 inches



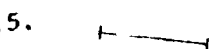
2. 1 $\frac{1}{2}$ inches



3. 3 $\frac{1}{2}$ inches



4. 4 $\frac{1}{2}$ inches



5. $\frac{1}{2}$ inch

LEVEL: D

Name _____

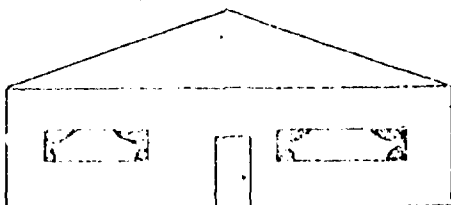
METRIC GEOMETRY

Date _____

Skill 1 (Page 2 of 2 pages)

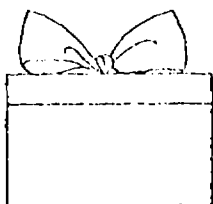
Use a foot ruler to measure the length of the following to the nearest $\frac{1}{4}$ inch. Label.

1.



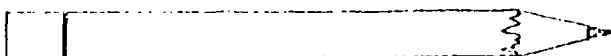
1. $2\frac{3}{4}$ inches

2.



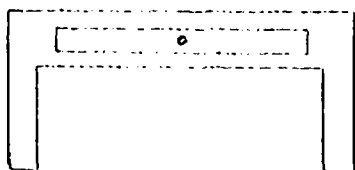
2. $1\frac{1}{4}$ inches

3.



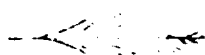
3. $3\frac{3}{4}$ inches

4.



4. $2\frac{1}{4}$ inches

5.



5. $1\frac{1}{4}$ inches

LEVEL DMETRIC GEOMETRY

Skill 2

Name _____

Date _____

Solve the problems.

1. 1 foot + 6 inches =

1. 18 inches

2. 1 yard - 2 feet =

2. 1 feet

3. 2 feet + 4 inches =

3. 28 inches

4. 6 feet + 3 feet =

4. 3 yards

5. 1 yard + 11 inches =

5. 47 inches

6. 3 feet + 12 inches =

6. 4 feet

7. 1 foot - 10 inches =

7. 2 inches

8. 1 yard - 12 inches =

8. 2 feet

9. 2 yards + 6 feet =

9. 4 yards

10. 3 yards - 36 inches =

10. 2 yards

LEVEL D

METRIC GEOMETRY

Skill 3, 4

Name _____

Date _____

Solve the problems.

- | | |
|---------------------------|---------------------|
| 1. 1 quart + 2 pints = | 1. <u>4</u> pints |
| 2. 1 gallon - 2 quarts = | 2. <u>2</u> quarts |
| 3. 4 cups + 1 pint = | 3. <u>6</u> cups |
| 4. 5 quarts + 3 quarts = | 4. <u>2</u> gallons |
| 5. 2 gallons + 3 quarts = | 5. <u>11</u> quarts |

6. Sally is selling orange juice for 10¢ a cup. What does a quart of orange juice cost?

6. 40¢

7. Tom drinks a quart of milk each day. He drank 2 cups today. He needs to drink 2 more cups of milk.

8. Susan needs a gallon of ice cream for a party. She has one quart. Susan needs 3 more quarts of ice cream.

9. If each of 6 boys at a birthday party drinks a pint of orange soda, how many quart bottles will be needed? 3

10. Sue bought 2 yards of red material, 2 feet of green and 12 inches of white. She bought 3 yards of material.

LEVEL D






Name _____

TIME


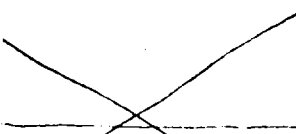





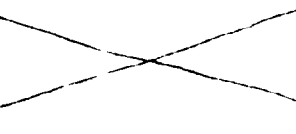


Date _____

Skill 2, 3,

Read the time shown on each clock. Fill in the missing word.

1.  quarter past 7 o'clock
2.  20 minutes to 10 o'clock
3.  25 minutes past 8 o'clock
4.  12 o'clock
5.  10 minutes to 9 o'clock

Match the clockfaces with the time statements.

6.  
7.  
8.  
9.  
10.  

LEVEL D

Name _____

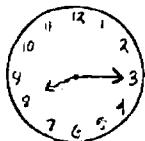
TIME

Date _____

Skill 4, 5

Make the clock tell the time.

1.



8:15

2.



7:35

3.



9:40

4.



1:05

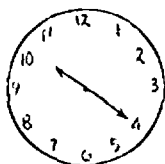
5.



10:55

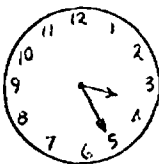
Write the time shown on each clock in time notation.

6.



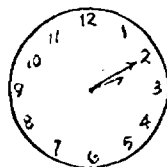
10:20

7.



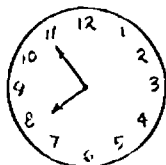
3:25

8.



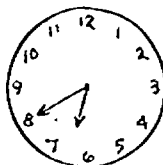
2:10

9.



7:55

10.



6:40

LEVEL D

Name _____

MONEY

Date _____

Skill 1

1. The value of a dollar is 100 cents.
2. The value of 136¢ is 1 dollar, 6 cents, 3 dimes.
3. How many cents in 2 dollars, 2 dimes and 4 pennies? 224 ¢
4. How many cents in 1 dollar, 3 dimes and 6 pennies? 136 ¢
5. Complete the chart.

| cents | \$ | 10¢ | 1¢ |
|-------|----|-----|----|
| 236 | 2 | 3 | 6 |
| 456 | 4 | 5 | 6 |
| 39 | 0 | 3 | 9 |
| 167 | 1 | 6 | 7 |
| 98 | 0 | 9 | 8 |
| 642 | 6 | 4 | 2 |

LEVEL D

Name _____

MONEY

Date _____

Skill 2

Write the amount of money using the \$ sign and the point.

1. four dollars and seventeen cents \$4.17
2. six dollars and fifteen cents \$6.15
3. three hundred forty-seven cents \$3.47
4. two dollars and ten cents \$2.10
5. seven dollars and fifty cents \$7.50

Complete the chart.

| Dollars | Dimes | Cents | Using \$ and . |
|---------|-------|-------|----------------|
| 9 | 9 | 7 | \$9.97 |
| 4 | 7 | 6 | \$4.76 |
| 5 | 3 | 2 | \$5.32 |
| 8 | 6 | 8 | \$8.68 |
| 7 | 5 | 3 | \$7.53 |

LEVEL D

Name _____

MONEY

Date _____

Skill 3

Name the sums.

$$\begin{array}{r} \$ 68 \\ +53 \\ \hline \$ 121 \end{array}$$

$$\begin{array}{r} 76¢ \\ +82 \\ \hline 158¢ \end{array}$$

$$\begin{array}{r} \$ 42 \\ +57 \\ \hline \$ 99 \end{array}$$

$$\begin{array}{r} 83¢ \\ +29 \\ \hline 112¢ \end{array}$$

$$\begin{array}{r} \$ 54 \\ +66 \\ \hline \$ 120 \end{array}$$

Name the missing amounts.

$$\begin{array}{r} \$ 57 \\ -38 \\ \hline \$ 19 \end{array}$$

$$\begin{array}{r} 81¢ \\ -24 \\ \hline 57¢ \end{array}$$

$$\begin{array}{r} \$ 33 \\ -16 \\ \hline \$ 17 \end{array}$$

$$\begin{array}{r} \$17 \\ -9 \\ \hline \$ 8 \end{array}$$

$$\begin{array}{r} 71¢ \\ -27 \\ \hline 44¢ \end{array}$$

LEVEL D

Name _____

MONEY

Date _____

Skill 4

1. Balloons cost 5 for 25¢. What does one balloon cost? 5 ¢

2. Pencils cost 4¢ each. How much will 6 pencils cost? 24 ¢

3. Jane saved 3 dollars, 5 dimes and 8 pennies. How many cents is this.

3... 368

4. How much for 1 can of peaches if 3 cans cost 99¢? 33

5. Nancy bought a dress for \$5.98 and a blouse for \$3.50. How much did Nancy spend?

5. \$... 9.48

LEVEL D

Name _____

SPECIAL TOPICS

Date _____

Skill 1

Write the Roman numerals for the following.

6 = VI

10 = X

3 = III

4 = IV

7 = VII

5 = V

Write these Roman numerals in our kind of numerals.

VIII = 8

XII = 12

II = 2

IX = 9

LEVEL D

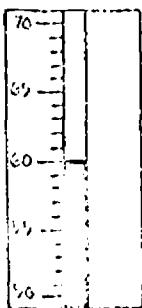
Name _____

SPECIAL TOPICS

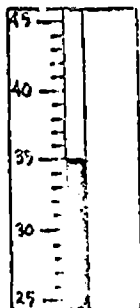
Date _____

Skill 2

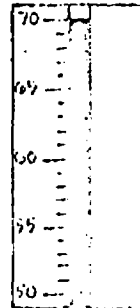
Write the temperature shown on the picture of the thermometer. Use the degree (°) symbol.



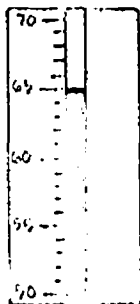
1. 60°



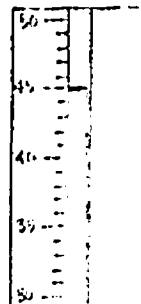
2. 35°



3. 70°



4. 65°



5. 45°

LEVEL D

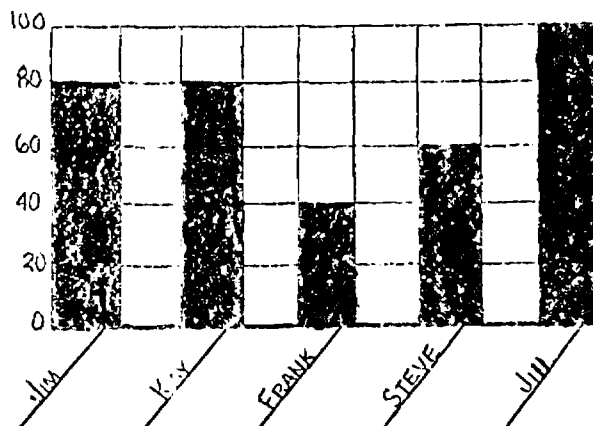
Name _____

SPECIAL TOPICS

Date _____

Skill 3

Read the bar graph and answer the following questions.



1. Who made the highest score on the test?

1. Jill

2. Who made the lowest score on the test?

2. Frank

3. What was Jim's score?

3. 80

4. Who made the score of 60?

4. Steve

5. How much higher was Kay's score than Frank's?

5. 40

MATHEMATICS CONTINUUM

LEVEL E

BOOK 4

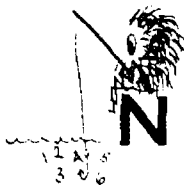
Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

Metric and Non-Metric Geometry have been combined under the heading Geometry.

Time skills have not been keyed under Textual Resources because they are interspersed with other skills.

LEVEL E

NUMERATION



Review of Level D Skills

1. Counts to 1,000,000 by reading or writing short sequences of numbers from any starting point.
2. Writes numerals to 1,000,000 in compact form, expanded form or in words and vice versa. Identifies place value up to 6 digits and makes a place value chart.
3. Writes $>$ or $<$ to show the relationship between two numbers to 1,000,000.
4. Writes Roman numerals for 1-20, 50, 100, 500, 1,000 and vice versa.

Example

Numeration

Fill the blanks in this sequence.

107,998; 107,999; 108,000; 108,001;
108,002; 108,003; 108,004

Write the number words for the following numeral.

432 four hundred thirty-two

Write the place value of the underlined digit.

756,904 thousands

Write this number in expanded form.

56,924 = 50,000 + 6,000 + 900
+ 20 + 4

Put $>$ or $<$ in the \bigcirc .

947,350 \bigcirc 94,430

Write the standard numeral for these Roman numerals.

XV = 15
D = 500

Textual ResourcesNumeration

HM Book 4, pp. 1-6, 9,
12-16

1.

2. HM Book 4, pp. 17-21,
24, 26, 208, 209

3.

4. HM Book 4, pp. 22, 23,
25

Related Resources

HM Visuals 4 (1, 2)
HM Masters 4 (1, 3,
4)

HM Visuals 4 (2, 22)
HM Masters 4 (5, 56)

Notes

LEVEL E

Numeration

5. Defines and uses the idea of universal set, intersection and union of sets.

No mastery test until Level F.

6. In-Depth.

Identifies numbers and states rules for adding, subtracting and multiplying two numbers; e.g., $E + E = E$. Selects the rule when a numerical example is given and vice versa. Teacher note: Mastery test is provided.

Example

Universal set (U):

all animals in the world

Subsets:

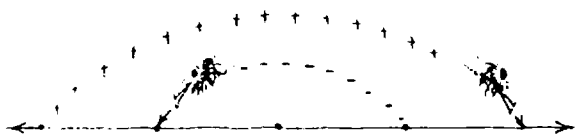
A: tigers B: mice

If the additions below are done, will the answer be odd or even?

$O + O =$ Odd Even

$E + O =$ Odd Even

ADDITION AND SUBTRACTION



Review of Level D Skills

1. Reinforces the commutative and associative properties for addition and the idea that addition and subtraction are inverse operations.

Addition and Subtraction

Complete the statements.

$$\boxed{435} + 35 = 35 + \boxed{435}$$

$$\begin{aligned} 9 + 6 &= 9 + (1 + 5) \\ &= (9 + \boxed{1}) + 5 \\ &= \boxed{10} + 5 \\ &= \boxed{15} \end{aligned}$$

$$(7 + 2) - 2 = 7 + (2 - 2) = \boxed{7}$$

Textual ResourcesRelated ResourcesNotesNumeration

5. HM Book 4, pp. 7, 8,
35

HM Masters 4 (2, 8)

6. HM Book 4, pp. 27,
214-217, 318-321, 334,
341

HM Masters 4 (6, 78)

Addition and Subtraction

HM Book 4, pp. 28-30,
36, 37, 44, 45

1. HM Book 4, pp. 38, 39,
64

HM Visuals 4 (3)
HM Masters 4 (9)

LEVEL E

Addition and Subtraction

2. Identifies or solves a true, false, open, equal or unequal number sentence.
3. Uses the addition and subtraction rule to find the unknown member of an ordered pair when given one of the members.
4. Performs addition and subtraction with renaming for three or more place numbers.
5. Solves word problems requiring addition or subtraction skills mastered to this point.
Teacher note: Use the five-step method, student's page 42.
6. Mixed Practice.
7. In-Depth.

Example

Addition and Subtraction

Write this sentence as a number sentence.

The sum of 17 and 14 is 31.

Replace he or she with a name to make the sentence true.

He sat in a corner.

She has a little lamb.

Write $>$, $<$ or $=$ in the \bigcirc .

$$9 - 4 \bigcirc 8 - 3$$

Use the rule to find the unknown member of each pair.

The second number is 5 greater than the first.

(0,a), (1,b), (2,c), (3,d),
(4,e), (5,f)

Name the sum.

$$\begin{array}{r} 45 \\ 261 \\ 389 \\ \hline 695 \end{array}$$

Name the difference.

$$\begin{array}{r} 909 \\ - 242 \\ \hline 667 \end{array}$$

Sam has 182 baseball trading cards and Jerry has 234 base baseball cards. How many more has Jerry?

$$\underline{52}$$

Textual ResourcesAddition and Subtraction

2. HM Book 4, pp. 10, 11,
32-34, 43

3. HM Book 4, pp. 31, 41

4. HM Book 4, pp. 46-54,
64

5. HM Book 4, pp. 40, 42,
43

6. HM Book 4, pp. 55, 63,
64, 91

7. HM Book 4, p. 65

Related Resources

HM Masters 4 (10)

HM Visuals 4 (4)
HM Masters 4 (7)

HM Visuals 4 (5, 6)
HM Masters 4 (11, 12)

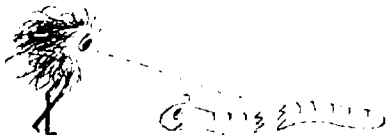
HM Masters 4 (10)

HM Masters 4 (12, 20)

Notes

LEVEL E

MULTIPLICATION AND DIVISION



Review of Level D Skills

1. Uses successive addition to solve multiplication problems for a one-place number times a one, two or more place number.
2. Knows the multiplication and division combinations 6 through 9. Timed Test. Mastery not expected until near end of year.
3. Uses the commutative, associative and distributive properties to simplify multiplication.
4. Uses the multiplication and division rule to find the unknown member of an ordered number pair when given one of the members. Finds cross products.
5. Performs multiplication with a one digit factor times a two or more digit factor.

Example

Multiplication and Division

Find the missing numbers.

$$\begin{array}{r} 19 + 19 + 19 = \boxed{57} \\ 3 \times 19 = \boxed{57} \end{array}$$

Find the products or quotients.

$$\begin{array}{ll} 8 \times 5 = \boxed{40} & 48 \div 6 = \boxed{8} \\ 6 \times 8 = \boxed{48} & 35 \div 7 = \boxed{5} \\ 7 \times 9 = \boxed{63} & 64 \div 8 = \boxed{8} \end{array}$$

Solve the equation.

$$\boxed{8} \times 3 = 3 \times 8$$

Draw a circle around the equation which shows the commutative property.

$$\begin{array}{l} 8 \times 5 = 2 \times (4 \times 5) \\ \boxed{8 \times 5 = 5 \times 8} \\ 8 \times 5 = 40 \end{array}$$

Name the multiplication or division rule. Then complete the number pairs in each set.

$$\{(1,6), (3,18), (7,42), (6,a), (9,b), (4,c), (2,d)\}$$

$$\begin{array}{r} \times 6 \\ \hline \end{array}$$

Write the products.

$$\begin{array}{r} 28 \\ \times 8 \\ \hline 224 \end{array} \qquad \begin{array}{r} 18 \\ \times 6 \\ \hline 108 \end{array}$$

Textual ResourcesRelated ResourcesNotesMultiplication and DivisionReview

- | | | |
|--|--|--|
| 1. HM Book 4, pp. 94, 95 | HM Masters 4 (21) | |
| 2. HM Book 4, pp. 104-107, 109, 160, 179 | HM Masters 4 (25, 26, 47) | |
| 3. HM Book 4, pp. 97-99, 115, 116, 118, 125, 161, 162, 321 | HM Visuals 4 (13, 18) | |
| 4. HM Book 4, pp. 100-103, 112, 177, 238, 239 | HM Visuals 4 (12, 23) HM Masters 4 (24, 27) | |
| 5. HM Book 4, pp. 117, 121, 124, 163, 164, 166, 224-226 | HM Visuals 4 (13, 18) HM Masters 4 (29, 42, 43, 47, 58) | |

LEVEL E

Multiplication and Division

6. Uses multiples of ten to extend known multiplication and division facts.
7. Multiplies a two digit number by a two digit number.
8. Shows that multiplication and division are inverse operations by using opposites to check.
9. Uses the "ladder" or successive subtraction method to do division with a one digit divisor and one or more digit dividend, with no remainder.
10. Uses the terms "dividend", "divisor", "quotient" and "remainder" to label parts of a division problem. Does division with remainders for one digit divisor and a one or two digit dividend.
11. Solves word problems requiring multiplication or division skills mastered to this point.
Teacher note: Use the five-step method, student's page 42.
12. Mixed Practice.

Example

Multiplication and Division

Find the products.

$$\begin{array}{r} 17 \\ \times 10 \\ \hline 170 \end{array} \quad \begin{array}{r} 17 \\ \times 100 \\ \hline 1700 \end{array} \quad \begin{array}{r} 17 \\ \times 1000 \\ \hline 17000 \end{array}$$

Multiply.

$$\begin{array}{r} 35 \\ \times 27 \\ \hline 245 \\ 700 \\ \hline 945 \end{array}$$

Divide and check by multiplying

$$\begin{array}{r} 105 \\ 7 \overline{) 735} \end{array} \quad 7 \times 105 = \underline{735}$$

Use the ladder method to find the quotient for $4 \overline{) 56}$

$$\begin{array}{r|l} 4 \overline{) 56} & \\ - 40 & 10 \\ \hline 16 & \\ - 16 & 4 \\ \hline 0 & \end{array}$$

Identify each numeral as divisor, dividend, quotient or remainder.

$$\begin{array}{ccccccc} 9 & \div & 2 & = & 4 & 1 \\ \text{dividend} & & \text{divisor} & & \text{quotient} & & \text{r} \end{array}$$

Divide.

$$\begin{array}{r} 29 \text{ r } 1 \\ 2 \overline{) 59} \end{array}$$

Twenty-one children were put into three teams for a spelling bee. How many children were on each team?

$$\begin{array}{r} 7 \\ 3 \overline{) 21} \end{array}$$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--|--------------|
| <u>Multiplication and Division</u> | | |
| 6. HM Book 4, pp. 168, 169, 227 | HM Masters 4 (44) | |
| 7. HM Book 4, pp. 170-174, 228 | HM Masters 4 (45, 46 58) | |
| 8. HM Book 4, pp. 96, 108, 179 | HM Masters 4 (22, 47, 51) | |
| 9. HM Book 4, pp. 184, 185, 232, 234, 235 | HM Visuals 4 (19) HM Masters 4 (50, 60) | |
| 10. HM Book 4, pp. 180-183, 188, 189, 230, 231, 236 | HM Masters 4 (48, 49, 59) | |
| 11. HM Book 4, pp. 110, 111, 113, 122, 123, 168, 206, 213, 233, In-Depth p. 253 | HM Masters 4 (28) | |
| 12. HM Book 4, pp. 125, 147, 148, 176, 237 | | |

LEVEL E

Multiplication and Division

13. In-Depth.

Example

Multiplication and Division

FRACTIONS



Review of Level D Skills

1. Uses the words "numerator" and "denominator" to identify parts of a fraction.
2. Pictures fractions by constructing a model using a unit model or a set. Describes fractional part as _____ of _____ parts.
3. Changes a given fraction to an equivalent fraction with the aid of pictures.
4. Places $>$, $<$ or $=$ between two pictured fractions to show their relationship.
5. Adds or subtracts fractions with the same denominator, with or without pictures.

Fractions

In the fraction $7/10$:

$\frac{7}{10}$ is the numerator and
 $\frac{10}{10}$ is the denominator.

Draw a ring around $2/3$ of this set.



Complete each equation.

$$\frac{1}{4} \text{ of } 12 = \frac{3}{4}$$

$$\frac{1}{10} \text{ of } 80 = \frac{8}{10}$$

Solve the equation.

$$\frac{1}{2} = \frac{2}{4}$$



Put $>$ or $<$ in the \bigcirc .

$$\frac{2}{6} \bigcirc \frac{4}{6}$$

Add or subtract the following:

$$\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$$

$$\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$$

Textual ResourcesRelated ResourcesNotesMultiplication and Division

13. HM Book 4, pp. 127,
191-205, 207, 210-212,
218-223, 229, 250-252,
254, 255, 271, 280-283,
287, 322, 325-329

HM Visuals 4 (20, 21)
HM Masters 4 (30, 51-55,
57, 63, 69, 77, 79)

Fractions

- HM Book 4, pp. 128-131
1. HM Book 4, p. 132, 133
2. HM Book 4, p. 150 prob-
lems 17-24
3. HM Book 4, pp. 138-142,
158 problems 1-9, 304,
305
4. HM Book 4, pp. 300,
301
5. HM Book 4, pp. 134, 136,
137, 288-294
In-Depth pp. 324, 338,
340

HM Visuals 4 (14-16)
HM Masters 4 (31)
HM Masters 4 (32)

HM Visuals 4 (17)
HM Masters 4 (35, 36)

HM Visuals 4 (27)

HM Masters 4 (34,
70, 76)

LEVEL E

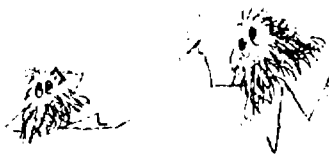
Fractions

6. Mixed Practice.
7. In-Depth.

Example

Fractions

GEOMETRY



Review of Level D Skills

- D Non-Metric Geometry 1
- D Non-Metric Geometry 2
- D Non-Metric Geometry 4
- D Metric Geometry 1

1. Illustrates by identifying: perpendicular lines, intersecting lines, parallel lines, end points and congruent line segments.
- *2. Identifies surfaces in the classroom or from pictures that represent a part of a plane or intersecting planes.
3. Constructs regular closed surfaces (solids): cube, square, pyramid, cone, cylinder.
4. Draws or identifies plane geometric figures for: equilateral triangle, right triangle, and quadrilateral, when the name is given and conversely.

Geometry

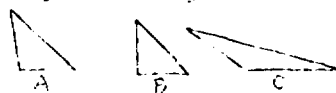
Which figure shows perpendicular lines?



Name an object in the classroom that represents part of a plane.

Using the pattern given, copy, cut out, and construct the figure.

Which figure is the picture of a right triangle?



Textual ResourcesRelated ResourcesNotesFractions

6. HM Book 4, pp. 148, 316
7. HM Book 4, pp. 135, 143-146, 150-154, 157-159, 295-299, 302, 303, 306-315, 317, 323

HM Visuals 4 (17)
HM Masters 4 (33, 37-40, 71-75)

GeometryReview

- HM Book 4, pp. 66, 67
HM Book 4, p. 71
HM Book 4, p. 75
HM Book 4, p. 266
1. HM Book 4, pp. 68, 69, 72-74, 77
 2. HM Book 4, p. 70
In-Depth pp. 256-259
 3. HM Book 4, pp. 260-265
 4. HM Book 4, pp. 76, 77, 190, 286

HM Visuals 4 (7, 8, 26)

HM Visuals 4 (8)
HM Masters 4 (14, 15)

HM Visuals 4 (24)
HM Masters 4 (64)

HM Visuals 4 (25)
HM Masters 4 (65)

HM Visuals 4 (8)
HM Masters 4 (16)

LEVEL E

Geometry

5. Uses a compass to draw a circle with a given radius. Identifies the diameter and radius of a given circle.
6. Reads weights of designated objects in pounds and ounces on a scale. Uses conversion factors of: pound = 16 ounces, ton = 2,000 pounds. Converts miles to feet and vice versa, e.g., mile = 5,280 feet.
- *7. Uses linear measuring instruments for even centimeters and meters to measure objects in the classroom.
8. Counts square units to determine the area of pictured regions.
9. Measures the volume of a simple closed surface using counting cubes.
10. Uses a number pair to locate a point on a number plane or conversely.
11. Reads and makes simple line graphs, bar graphs, circle graphs and pictographs.

Example

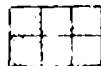
Geometry

Use your compass to draw a circle with a 2" radius that has point A as its center.

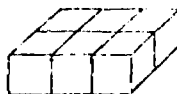
Teacher activity: Given the pictures of several objects, the student identifies the common units of weights associated with each object.
Example: road distance-miles
coal-ton
person-pounds
canned foods-ounces

Use the meter stick to measure the length of the chalkboard.

Find the number of square units (area) in the shaded region.



Find the number of cubic units (volume) for each figure.



Name the number pair for each point on the number plane.

Using the information given, make a bar graph to show the temperatures at noon during the first week in May.

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--|--------------|
| <u>Geometry</u> | | |
| 5. HM Book 4, pp. 78, 79 | HM Visuals 4 (9) HM Masters 4 (17) | |
| 6. | | |
| 7. | | |
| 8. HM Book 4, pp. 88-90, 267 | HM Visuals 4 (11, 26) HM Masters 4 (19) | |
| 9. HM Book 4, pp. 268, 269 | HM Visuals 4 (26) | |
| 10. HM Book 4, pp. 84-87, 92, 272, 273 | HM Visuals 4 (10) HM Masters 4 (18, 67) | |
| 11. HM Book 4, pp. 226, 274-279, 284, 285 | HM Masters 4 (68) | |

LEVEL E

Geometry

- *12. Solves word problems using skills learned to this point.

13. In-Depth.

Example

Geometry

TIME



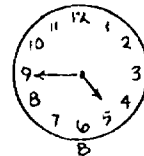
Review of Level D Skills

1. Uses "morning", "afternoon", and "night" to describe part of the day. Uses 12:00 noon and 12:00 midnight as dividing times. Writes times using A.M. and P.M.
2. Finds the number of minutes which have elapsed between two pictured minute hand readings for time differences up to 2 hours. Calculates the passage of time using knowledge of 60 minutes in an hour, 5 minutes between "dots".
3. Solves simple problems to answer "What will the time be ..." and which require reading bus, train or plane schedules.

Time

Write A.M. or P.M. to make a true statement.
Some Saturday afternoon movies start at 2:00 P.M.

How many minutes have passed between the time shown on clock A and clock B?



15 minutes

What will the time be 1 1/2 hours later than the time shown on this clockface?



Leaves
N.Y.

Arrives
Pbgh.

| | | |
|---|------------|------------|
| A | 8:00 A.M. | 9:00 A.M. |
| B | 10:00 A.M. | 11:00 A.M. |

Plane A arrives in Pittsburgh at 9:00 A.M.

Plane B leaves N.Y. at 10:00 A.M.

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--------------------------|--------------|
| <u>Geometry</u> | | |
| 12. HM Book 4, pp. 82, 83, 186, 270 In-Depth pp. 93, 337 | HM Masters 4 (66) | |
| 13. HM Book 4, pp. 80, 81, 187, 241, 282, 335, 336, 339 | HM Masters 1 (69, 80) | |
| <u>Time</u> | | |
| <p><u>Teacher note:</u> TIME skills are interspersed with other skills; therefore, no pages have been keyed. Oral and written activities (such as have been used in the examples and for the test material) should be used so the student will be successful as these skills are encountered in the textbook.</p> | | |

LEVEL E

Time

4. Identifies the second hand on a clock. Reads time on clockfaces that contain a second hand. States that there are 60 seconds in a minute.
5. Identifies units of the calendar: days, weeks and months; and states number of days in a week and number of days in each month. Completes calendars to identify "today's date", what day a particular date will be, etc. Solves word problems using a calendar. Writes any given date as month, day, and year or with numerals.
6. Completes addition and subtraction problems involving two or three time units which require one or two regroupings. Include seconds, minutes, hours, days, weeks, months, and years. Specify use of 30 days in a month and 365 days in a year.

Example

Time

The time shown on this clock is
_____ hours _____ minutes
_____ seconds.

Complete this calendar for May 1968.

| 1968 | MAY | | | | | | 1968 |
|------|-----|---|----|---|----|----|------|
| S | M | T | W | T | F | S | |
| | | | 1 | | | | |
| | | 7 | | | | 11 | |
| | | | | | 17 | | |
| | | | 22 | | | | |
| 26 | | | | | | | |

Mary's mother baked a cake on Saturday. It took 25 minutes to mix, 50 minutes for the cake to bake. It took 1 hour and 10 minutes for the cake to cool and 15 minutes to frost the cake. How long did Mary's mother spend making the cake?

2 hours 40 minutes

Textual Resources

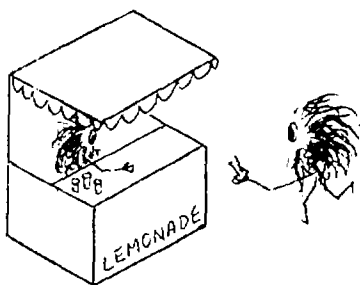
Time

Related Resources

Notes

LEVEL E

MONEY



Review

1. Identifies the change in coins which would be received in making single purchases costing up to \$10.00.
2. Adds (two or more addends) and subtracts money values, using cent notation (¢) and decimal notation (.), and dollar notation (\$). Problems written in horizontal or vertical form.
- *3. Indicates the change in coins which would be received from \$10.00 for purchases which amount to less than \$10.00. Counts out the change starting with the total value of the purchases.
4. Solves one and two step verbal (word) problems and non-verbal problems involving skills learned to this point.
5. Mixed Practice.

Example

Money

Circle the coins which you would receive as change if you bought a pair of skates for \$2.97, and gave the sales clerk \$5.00.

Find the sums and differences.

| | |
|----------------|--------------|
| \$.82 | \$.82 |
| 1.56 | - .57 |
| .98 | <u>8 .25</u> |
| <u>\$ 3.36</u> | |

Marla bought a baseball pennant for 39¢, a windup dog for 78¢ and a baseball beanie for \$1.65. Count out the change that Marla got from a ten-dollar bill.

Mary bought a skirt for \$5.98 and a blouse for \$3.95. She gave the clerk \$10.00. How much change will she get?

Textual Resources

Money

HM Book 4, pp. 58, 59

1.

2. HM Book 4, p. 60, 61

3.

4. HM Book 4, pp. 114, 165,
167, 175

5. HM Book 4, p. 156

Related Resources

Notes

HM Masters 4 (13)

LEVEL E

SPECIAL TOPICS

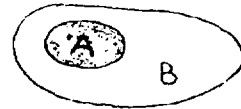


- *1. Interprets set-subset statements using terms "all", "some", "none", and "if then".

Example

Special Topics

Use the diagram. Write T or F to show whether each statement is true or false.



All the objects in A are in B. _____

Textual Resources

Special Topics

Related Resources

Notes

1. HM Book 4, pp. 242-249

HM Masters 4 (61)

LEVEL E
TESTS
and
ANSWER KEYS



LEVEL E

Name _____

NUMERATION

Date _____

Skill 1, 2 (Page 1 of 2 pages)

Fill in the blanks in this sequence.

1. 624,327; _____; _____; 624,330; _____; _____; 624,333
2. 999,994; _____; _____; _____; _____; _____; 1,000,000
3. 253,839; _____; _____; _____; _____; _____; 253,845
4. 253,103; _____; _____; _____; _____; _____; 253,114
5. 207,898; _____; _____; _____; _____; _____; 207,904

Write the number words or the number for the following:

- | | |
|---|----------|
| 1. Seventy-five | 1. _____ |
| 2. 628 | 2. _____ |
| 3. 950 | 3. _____ |
| 4. Eight thousand, three hundred, twenty-five | 4. _____ |
| 5. 3002 | 5. _____ |

LEVEL E

Name _____

NUMERATION

Date _____

Skill 1, 2 (Page 2 of 2 pages)

Give the place value of the underlined digit.

1. 695,643

1. _____

2. 926,408

2. _____

3. 567,904

3. _____

4. 796,713

4. _____

5. 1,520,427

5. _____

Write these numbers in expanded notation.

1. 8,260 = _____ + _____ + _____ + _____

2. 182,952 = _____ + _____ + _____ + _____ + _____ + _____

Write the following using number words.

3. 503,762 _____

4. 1,025,700 _____

Complete the place value chart.

| | Hundred Thousands | Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------|----------------------|------------------|-----------|----------|------|------|
| 476,393 | | | | | | |
| 09,006 | | | | | | |

LEVEL E

NUMERATION

Skill 3

Name _____

Date _____

Use $>$ or $<$ in the ☐

1. 6,280 ☐ 4,280

2. 836,420 ☐ 83,432

3. 809,604 ☐ 809,640

4. 44,952 ☐ 43,952

5. 389,420 ☐ 389,412

6. 763,982 ☐ 736,982

7. 286,589 ☐ 286,598

8. 572,361 ☐ 572,631

9. 998,723 ☐ 989,723

10. 289,767 ☐ 273,767

LEVEL E

Name _____

NUMERATION

Date _____

Skill 4

Write the Roman numeral or Arabic base 10 numeral for the following:

1. 9 _____
2. 44 _____
3. 12 _____
4. 18 _____
5. XIX _____
6. MCMLXX _____
7. 500 _____
8. L _____
9. 20 _____
10. 1000 _____

LEVEL E

Name _____

NUMERATION

Date _____

In-Depth (Odd and Even Numbers)

If the operations below are done, will the answers be odd or even?

| | ODD | EVEN |
|------------------|-------|-------|
| 1. Even + Even = | _____ | _____ |
| 2. Even x odd = | _____ | _____ |
| 3. Even - odd = | _____ | _____ |

4. Select the letter of the rule that applies to the example

$$11 - 2 = 9.$$

- (a) odd - odd = odd
- (b) odd - odd = even
- (c) odd - even = odd
- (d) odd - even = even

4. _____

5. Give an example for the rule "an odd number minus an odd number equals an even number."

5. _____

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1

Fill in the missing addend.

1. _____ + 45 = 45 + 445

2. 250 + 50 = 50 + _____

3. _____ + 21 = 21 + 230

Select the equations which show the commutative principle.

4. a. $39 + 253 = 253 + 39$

b. $39 + 200 + 50 + 3 = 292$

c. $39 + 253 = 39 + 253$

5. a. $300 + 72 + 37 = 372 + 37$

b. $372 + 37 = 409$

c. $372 + 37 = 37 + 372$

6. a. $90 + 54 = 90 + 50 + 4$

b. $90 + 54 = 144$

c. $90 + 54 = 54 + 90$

Complete the equations.

7. $8 + 7 = 8 + (2+5)$
 $= (8+ \underline{\quad}) + 5$
 $= \underline{\quad} + 5$
 $= \underline{\quad}$

8. $9 + 9 = 9 + (1+8)$
 $= (9+ \underline{\quad}) + 8$
 $= \underline{\quad} + 8$
 $= \underline{\quad}$

9. $(6+3) - 3 = 6 + (3-3) = \underline{\quad}$

10. $5 + 7 - 7 = 5 + (\underline{\quad} - 7) = \underline{\quad}$

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Write each sentence as a number sentence.

1. 5 is greater than 4.

2. 863 is less than 922.

3. $500 + 40 + 6$ and 546 name the same number.

4. The sum of 8 and 6 is greater than the sum of $9 + 4$.

Write $>$, $<$, or $=$ in the \bigcirc .

5. $8 + 2 \bigcirc 3 + 7$

8. $4 + 6 \bigcirc 6 - 4$

6. $6 + 6 \bigcirc 9 + 4$

9. $0 + 5 \bigcirc 5 + 0$

7. $18 - 7 \bigcirc 6 + 9$

10. $8 - 3 \bigcirc 3 + 1$

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 3

Use the rule to complete each set of number pairs.

1. The second number is 5 greater than the first.

(1, __), (2, __), (3, __), (4, __), (5, __), (6, __)

2. The second number is 8 less than the first.

(8, __), (9, __), (10, __), (11, __), (12, __), (13, __)

3. The second number is 9 greater than the first.

(__, 10), (__, 11), (__, 12), (__, 13), (__, 14), (__, 15)

4. The second number is 5 less than the first.

(__, __), (__, 8), (__, 9), (__, 10), (__, 11), (__, 12)

5. The second number is 6 less than the first.

(18, __), (17, __), (16, __), (15, __), (14, __), (13, __)

Complete the number pairs in each set.

6. (6, 3), (8, 5), (7, __), (9, __), (3, __), (5, __), (10, __), (11, __)

7. (3, 3), (4, 4), (5, __), (6, __), (7, __), (8, __), (9, __), (10, __)

8. (5, 11), (6, 12), (7, __), (8, __), (9, __), (4, __), (3, __), (2, __)

9. (3, 12), (5, 14), (2, 11), (5, __), (4, __), (8, __), (6, __), (0, __)

10. (7, 3), (8, 4), (9, 5), (__, 6), (__, 7), (__, 8), (__, 9), (__, 2)

LEVEL E

ADDITION AND SUBTRACTION

Skill 4

Add.

$$\begin{array}{r} 14,965 \\ +26,638 \\ \hline \end{array}$$

$$\begin{array}{r} 94,382 \\ +6,439 \\ \hline \end{array}$$

$$\begin{array}{r} 17,065 \\ +19,374 \\ \hline \end{array}$$

$$\begin{array}{r} 87,682 \\ +19,507 \\ \hline \end{array}$$

$$\begin{array}{r} 3,954 \\ 4,163 \\ +5,002 \\ \hline \end{array}$$

$$\begin{array}{r} 9,246 \\ 3,052 \\ + 941 \\ \hline \end{array}$$

Name _____

Date _____

Subtract.

$$\begin{array}{r} 43,521 \\ -4,789 \\ \hline \end{array}$$

$$\begin{array}{r} 35,678 \\ -9,780 \\ \hline \end{array}$$

$$\begin{array}{r} 5,500 \\ -1,679 \\ \hline \end{array}$$

$$\begin{array}{r} 60,001 \\ -6,789 \\ \hline \end{array}$$

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5 (Page 1 of 2 pages)

Solve the problems. Label.

1. The fifth and sixth grades sold 589 pencils; the third and fourth grades sold 600 pencils and the first and second grades sold 450 pencils. How many pencils did all the children sell together?

1. _____

2. Mary's room was collecting bottle caps for the math class. They collected 360 on Monday, 398 on Tuesday, and 1,000 on Wednesday. How many bottle caps did they collect on Tuesday and Wednesday?

2. _____

3. John was saving popsicle sticks. He collected 200 the first week, 370 the next week, and 210 the next. How many sticks did he have then?

3. _____

4. Mary sold 66 cookies on Thursday, 182 on Friday and 378 on Saturday. Susan sold a total of 750 cookies. How many cookies did the 2 girls sell?

4. _____

5. Jim saved \$16.35 in one year, \$23.52 the next and \$126.78 the third year. How much money does he have now?

5. _____

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5 (Page 2 of 2 pages)

Solve the problems.

6. There were 812 birds in the park. There were 201 redbirds, 199 bluebirds, 87 pigeons and 4 parrots and the rest were robins. How many robins were in the park?

6. _____

7. There were 962 pupils in school. 507 were boys. How many girls were there?

7. _____

8. If your heart beats 70 times a minute when you are sitting down and 120 times a minute when you are walking, how much faster does it beat when you walk?

8. _____

9. Mr. Brown's music class collected 543 old records. 296 of these records were jazz records and 165 were folk songs, the rest were patriotic. How many patriotic records?

9. _____

10. There were 900 people at the tulip festival. 317 were men, 450 were women, how many children were there at the tulip festival?

10. _____

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1

Name the missing numerals.

1. $9 + 9 + 9 + 9 + 9 + 9 =$ _____

$6 \times 9 =$ _____

6. $5 + 5 + 5 + 5 + 5 =$ _____

$5 \times 5 =$ _____

2. $10 + 10 + 10 + 10 + 10 + 10 =$ _____

$6 \times 10 =$ _____

7. $64 + 64 + 64 =$ _____

$3 \times 64 =$ _____

3. $61 + 81 + 81 + 81 + 81 + 81 =$ _____

$6 \times 81 =$ _____

8. $54 + 54 + 54 + 54 =$ _____

$4 \times 54 =$ _____

4. $79 + 79 + 79 + 79 + 79 =$ _____

$5 \times 79 =$ _____

9. $29 + 29 + 29 =$ _____

$3 \times 29 =$ _____

5. $93 + 93 + 93 + 93 =$ _____

$4 \times 93 =$ _____

10. $46 + 46 + 46 + 46 =$ _____

$4 \times 46 =$ _____

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2 (Page 1 of 2 pages)

Timed: 4 minutes

Name the products.

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 8 \\ 2 \end{array}$ | $\begin{array}{r} 2 \\ 6 \end{array}$ | $\begin{array}{r} 1 \\ 8 \end{array}$ | $\begin{array}{r} 0 \\ 6 \end{array}$ | $\begin{array}{r} 1 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 2 \end{array}$ | $\begin{array}{r} 8 \\ 1 \end{array}$ | $\begin{array}{r} 1 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 9 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 2 \\ 7 \end{array}$ | $\begin{array}{r} 6 \\ 1 \end{array}$ | $\begin{array}{r} 9 \\ 1 \end{array}$ | $\begin{array}{r} 9 \\ 7 \end{array}$ | $\begin{array}{r} 2 \\ 8 \end{array}$ | $\begin{array}{r} 7 \\ 1 \end{array}$ | $\begin{array}{r} 1 \\ 6 \end{array}$ | $\begin{array}{r} 0 \\ 7 \end{array}$ | $\begin{array}{r} 6 \\ 9 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 1 \\ 7 \end{array}$ | $\begin{array}{r} 6 \\ 5 \end{array}$ | $\begin{array}{r} 0 \\ 8 \end{array}$ | $\begin{array}{r} 9 \\ 2 \end{array}$ | $\begin{array}{r} 0 \\ 9 \end{array}$ | $\begin{array}{r} 6 \\ 2 \end{array}$ | $\begin{array}{r} 2 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 3 \end{array}$ | $\begin{array}{r} 5 \\ 7 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 6 \\ 3 \end{array}$ | $\begin{array}{r} 9 \\ 9 \end{array}$ | $\begin{array}{r} 3 \\ 7 \end{array}$ | $\begin{array}{r} 6 \\ 4 \end{array}$ | $\begin{array}{r} 5 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 7 \end{array}$ | $\begin{array}{r} 3 \\ 8 \end{array}$ | $\begin{array}{r} 6 \\ 6 \end{array}$ | $\begin{array}{r} 3 \\ 9 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 7 \\ 5 \end{array}$ | $\begin{array}{r} 4 \\ 6 \end{array}$ | $\begin{array}{r} 5 \\ 8 \end{array}$ | $\begin{array}{r} 9 \\ 5 \end{array}$ | $\begin{array}{r} 9 \\ 3 \end{array}$ | $\begin{array}{r} 5 \\ 6 \end{array}$ | $\begin{array}{r} 4 \\ 7 \end{array}$ | $\begin{array}{r} 8 \\ 5 \end{array}$ | $\begin{array}{r} 8 \\ 8 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 4 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 4 \end{array}$ | $\begin{array}{r} 8 \\ 6 \end{array}$ | $\begin{array}{r} 8 \\ 3 \end{array}$ | $\begin{array}{r} 7 \\ 6 \end{array}$ | $\begin{array}{r} 6 \\ 7 \end{array}$ | $\begin{array}{r} 9 \\ 4 \end{array}$ | $\begin{array}{r} 8 \\ 9 \end{array}$ | $\begin{array}{r} 7 \\ 8 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

| | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| $\begin{array}{r} 8 \\ 4 \end{array}$ | $\begin{array}{r} 6 \\ 8 \end{array}$ | $\begin{array}{r} 9 \\ 6 \end{array}$ | $\begin{array}{r} 8 \\ 7 \end{array}$ | $\begin{array}{r} 6 \\ 0 \end{array}$ | $\begin{array}{r} 9 \\ 3 \end{array}$ | $\begin{array}{r} 7 \\ 0 \end{array}$ | $\begin{array}{r} 4 \\ 8 \end{array}$ |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2 (Page 2 of 2 pages)

Timed: 3 minutes

Name the quotients.

$$7 \overline{)63}$$

$$8 \overline{)56}$$

$$8 \overline{)64}$$

$$9 \overline{)27}$$

$$7 \overline{)35}$$

$$9 \overline{)54}$$

$$8 \overline{)16}$$

$$2 \overline{)14}$$

$$3 \overline{)18}$$

$$5 \overline{)35}$$

$$4 \overline{)36}$$

$$4 \overline{)28}$$

$$6 \overline{)24}$$

$$9 \overline{)81}$$

$$6 \overline{)30}$$

$$1 \overline{)6}$$

$$2 \overline{)12}$$

$$8 \overline{)72}$$

$$3 \overline{)21}$$

$$8 \overline{)40}$$

$$6 \overline{)48}$$

$$3 \overline{)24}$$

$$5 \overline{)45}$$

$$6 \overline{)42}$$

$$2 \overline{)18}$$

$$9 \overline{)63}$$

$$7 \overline{)56}$$

$$3 \overline{)27}$$

$$6 \overline{)54}$$

$$7 \overline{)49}$$

$$6 \overline{)36}$$

$$5 \overline{)40}$$

$$9 \overline{)72}$$

$$9 \overline{)36}$$

$$7 \overline{)28}$$

$$8 \overline{)32}$$

$$4 \overline{)36}$$

$$7 \overline{)21}$$

$$8 \overline{)56}$$

$$7 \overline{)0}$$

$$5 \overline{)30}$$

$$1 \overline{)9}$$

$$7 \overline{)35}$$

$$4 \overline{)32}$$

$$6 \overline{)18}$$

$$7 \overline{)14}$$

$$9 \overline{)18}$$

$$7 \overline{)42}$$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 3

Draw a circle around the equation which shows the commutative principle.

1. (a) $3 \times 8 = 24$

(b) $3 \times 8 = 4 \times (3 \times 2)$

(c) $3 \times 8 = 8 \times 3$

2. (a) $3 \times 30 = 3 \times (3 \times 10)$

(b) $6 \times 9 = 9 \times 6$

(c) $9 \times 6 = 54$

Supply the missing factors.

3. $8 \times 3 = \underline{\quad} \times 8$

4. $9 \times \underline{\quad} = 7 \times 9$

Complete the equations.

5. $(7 \times 4) + (7 \times 3)$

$= \underline{\quad} + \underline{\quad}$

$= \underline{\quad}$

6. $(6 \times 3) + (4 \times 3)$

$= (6 + 4) \times \underline{\quad}$

$= \underline{\quad} \times 3$

$= \underline{\quad}$

7. $3 \times (3 \times 6) = (3 \times 3) \times \underline{\quad}$

$= \underline{\quad} \times 6$

$= \underline{\quad}$

8. $(\underline{\quad} \times 20) \times 4 = 3 \times (20 \times 4)$

$= 3 \times \underline{\quad}$

$= \underline{\quad}$

9. $42 \times 3 = (40 + \underline{\quad}) \times 3$

$= (40 \times 3) + (2 \times 3)$

$= \underline{\quad} + \underline{\quad}$

$= \underline{\quad}$

10. $5 \times 70 = 5 \times (7 \times 10)$

$= (5 \times \underline{\quad}) \times 10$

$= \underline{\quad} \times 10$

$= \underline{\quad}$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 4

Name the multiplication rule. Then complete the number pair in each set.

1. $\{(6, 36), (3, 18), (7, \underline{\quad}), (9, \underline{\quad}), (4, \underline{\quad})\}$

Rule: _____

2. $\{(63, 7), (27, 3), 54, \underline{\quad}), (72, \underline{\quad}), (45, \underline{\quad})\}$

Rule: _____

3. $\{(21, 3), (35, 5), (49, \underline{\quad}), (28, \underline{\quad}), (63, \underline{\quad})\}$

Rule: _____

4. $\{(3, 24), (7, 56), (4, \underline{\quad}), (9, \underline{\quad}), (6, \underline{\quad})\}$

Rule: _____

5. $\{(1, 5), (3, 15), (9, \underline{\quad}), (7, \underline{\quad}), (6, \underline{\quad})\}$

Rule: _____

6. $\{(7, 70), (9, 90), (36, \underline{\quad}), (20, \underline{\quad}), (78, \underline{\quad})\}$

Rule: _____

7. $\{(20, 5), (4, 1), (24, \underline{\quad}), (40, \underline{\quad}), (36, \underline{\quad})\}$


Rule: _____

8. $\{(24, 4), (36, 6), (54, \underline{\quad}), (42, \underline{\quad}), (48, \underline{\quad})\}$

Rule: _____

9. $\{(4, 28), (3, 21), (6, \underline{\quad}), (8, \underline{\quad}), (5, \underline{\quad})\}$

Rule: _____

 $\{(90, 9), (50, 5), (120, \underline{\quad}), (270, \underline{\quad}), (390, \underline{\quad})\}$

Rule: _____

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5

Name the products.

$$\begin{array}{r} 27 \\ \underline{5} \end{array}$$

$$\begin{array}{r} 29 \\ \underline{4} \end{array}$$

$$\begin{array}{r} 38 \\ \underline{3} \end{array}$$

$$\begin{array}{r} 85 \\ \underline{4} \end{array}$$

$$\begin{array}{r} 94 \\ \underline{3} \end{array}$$

$$\begin{array}{r} 19 \\ \underline{4} \end{array}$$

$$\begin{array}{r} 68 \\ \underline{6} \end{array}$$

$$\begin{array}{r} 37 \\ \underline{7} \end{array}$$

$$\begin{array}{r} 29 \\ \underline{9} \end{array}$$

$$\begin{array}{r} 76 \\ \underline{4} \end{array}$$

$$\begin{array}{r} 549 \\ \underline{2} \end{array}$$

$$\begin{array}{r} 328 \\ \underline{3} \end{array}$$

$$\begin{array}{r} 864 \\ \underline{8} \end{array}$$

$$\begin{array}{r} 983 \\ \underline{7} \end{array}$$

$$\begin{array}{r} 7546 \\ \underline{9} \end{array}$$

$$\begin{array}{r} 783 \\ \underline{5} \end{array}$$

$$\begin{array}{r} 958 \\ \underline{7} \end{array}$$

$$\begin{array}{r} 569 \\ \underline{7} \end{array}$$

$$\begin{array}{r} 7193 \\ \underline{8} \end{array}$$

$$\begin{array}{r} 64308 \\ \underline{5} \end{array}$$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 6

Find the products.

$3 \times 7 = \underline{\quad}$

$4 \times 8 = \underline{\quad}$

$3 \times 70 = \underline{\quad}$

$4 \times 80 = \underline{\quad}$

$3 \times 700 = \underline{\quad}$

$4 \times 800 = \underline{\quad}$

$3 \times 7000 = \underline{\quad}$

$4 \times 8000 = \underline{\quad}$

Name the products.

$$\begin{array}{r} 48 \\ 10 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ 1000 \\ \hline \end{array}$$

$$\begin{array}{r} 67 \\ 90 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ 50 \\ \hline \end{array}$$

$$\begin{array}{r} 83 \\ 20 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ 100 \\ \hline \end{array}$$

$$\begin{array}{r} 82 \\ 60 \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ 10,000 \\ \hline \end{array}$$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 7

Name the products.

$$\begin{array}{r} 94 \\ 35 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ 88 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ 24 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ 17 \\ \hline \end{array}$$

$$\begin{array}{r} 73 \\ 29 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ 26 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ 39 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ 81 \\ \hline \end{array}$$

$$\begin{array}{r} 57 \\ 57 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ 58 \\ \hline \end{array}$$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 8, 9

Use the "ladder" method to find the quotients.
Check by multiplying.

$$4 \overline{)44}$$

$$6 \overline{)72}$$

$$9 \overline{)99}$$

$$7 \overline{)91}$$

$$5 \overline{)90}$$

$$3 \overline{)39}$$

$$9 \overline{)171}$$

$$4 \overline{)112}$$

$$8 \overline{)184}$$

$$9 \overline{)261}$$

LEVEL E

MULTIPLICATION AND DIVISION

Skill 10

Name _____

Date _____

Label the parts.

a) _____

b) _____

c) _____

d) _____

$$\begin{array}{r} \text{a)} \rightarrow 5 \\ \text{b)} \rightarrow 4 \overline{) 23} \leftarrow \text{c)} \\ \underline{20} \\ 3 \leftarrow \text{d)} \end{array}$$

Name the quotients and remainders.

$$6 \overline{) 52}$$

$$2 \overline{) 49}$$

$$8 \overline{) 65}$$

$$7 \overline{) 67}$$

$$9 \overline{) 84}$$

$$8 \overline{) 61}$$

$$6 \overline{) 45}$$

$$9 \overline{) 94}$$

$$7 \overline{) 31}$$

$$7 \overline{) 68}$$

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 11 (Page 1 of 2 pages)

Solve the problems. Label.

1. If there are 35 marbles in each bag, how many marbles would you have if you were given 56 bags of marbles?

1. _____

2. If there are 4 quarts in each gallon, how many gallons are there in 2,344 quarts?

2. _____

3. Sara had 42 cents when she went shopping. She needed pencils. If she paid 6 cents for each pencil, how many pencils could she buy?

3. _____

4. There are 30 days in November and 24 hours in each day. How many hours are there in November?

4. _____

5. The coach asked 56 boys to line up in rows of 7. How many rows did they have?

5. _____

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 11 (Page 2 of 2 pages)

6. Mary brought 35 suckers to the party.

a. How many suckers will each child get if there are 16 children at the party?

a. _____

b. How many suckers will be left?

b. _____

7. If 11 people could ride in one bus, how many could ride in 12 buses?

7. _____

8. If there are 5 boxes each containing 6 balls and 7 boxes each containing 7 balls, how many balls are there in all?

8. _____

9. At the carnival Sally spent 85¢ for 5 rides on the ferris wheel. How much did one ride cost if all rides cost the same?

9. _____

10. There are 480 windows to be washed and 6 men to wash them. How many windows will each man have to clean?

10. _____

LEVEL E

FRACTIONS

Skill 1, 3

Name _____

Date _____

1. In the fraction $\frac{3}{5}$

_____ is the numerator

_____ is the denominator

3. In the fraction $\frac{7}{9}$

_____ is the numerator

_____ is the denominator

2. In the fraction $\frac{8}{10}$

_____ is the denominator

_____ is the numerator

4. In the fraction $\frac{9}{10}$

9 is the _____



10 is the _____



5. In the fraction $\frac{16}{24}$

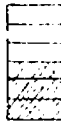
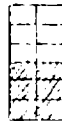
24 is the _____



16 is the _____



Complete each equation.

1.   $\frac{4}{8} = \frac{\boxed{2}}{\boxed{2}}$

3.   $\frac{2}{7} = \frac{6}{\boxed{21}}$

2.   $\frac{3}{6} = \frac{\boxed{4}}{\boxed{12}}$

4.   $\frac{8}{12} = \frac{\boxed{2}}{\boxed{3}}$

5.   $\frac{3}{12} = \frac{1}{\boxed{4}}$

LEVEL E

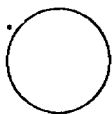
FRACTIONS

Skill 2

Name _____

Date _____

1. Shade $\frac{1}{4}$ of the circle.



3. Circle $\frac{3}{4}$ of the balls.



2. Draw a ring around $\frac{2}{3}$ of the set.

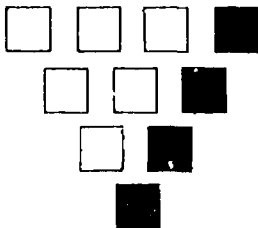


4. Write a fraction to tell the part of the region that is shaded.



4. _____

5. Write a fraction to tell what part of this set is shaded.



5. _____

Complete each equation.

1. $\frac{1}{3}$ of 15 = _____

3. $\frac{1}{4}$ of 24 = _____

2. $\frac{3}{4}$ of 36 = _____

4. $\frac{3}{5}$ of 65 = _____

5. 27 = _____ of 81

LEVEL E

Name _____

FRACTIONS

Date _____

Skill 4, 5

Use the number rods to complete the number sentences. Write $>$, $<$ or $=$ in the \bigcirc .



1. $\frac{2}{6} \bigcirc \frac{2}{3}$

2. $\frac{8}{12} \bigcirc \frac{3}{6}$

3. $\frac{3}{6} \bigcirc \frac{3}{12}$

4. $\frac{2}{12} \bigcirc \frac{2}{6}$

5. $\frac{1}{3} \bigcirc \frac{2}{6}$

Solve the equations.

1. $\frac{3}{9} + \frac{3}{9} =$

2. $\frac{2}{10} + \frac{3}{10} =$

3. $\frac{5}{6} - \frac{3}{6} =$

4. $\frac{3}{6} + \frac{1}{6} + \frac{1}{6} =$

5. $\frac{5}{7} - \frac{3}{7} =$

LEVEL E

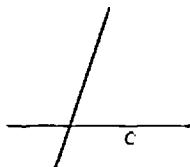
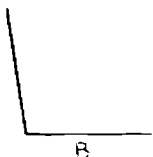
Name _____

GEOMETRY

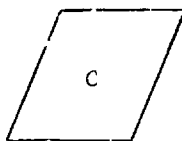
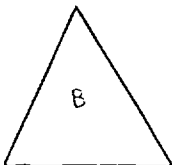
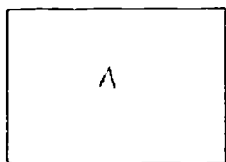
Date _____

Skill 1 (Page 1 of 2 pages)

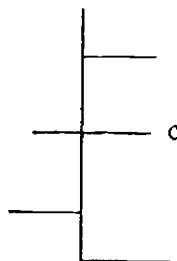
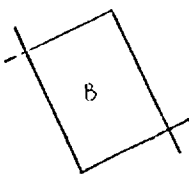
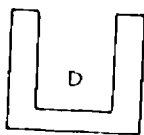
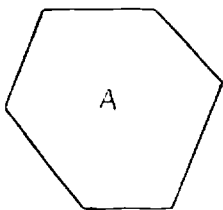
1. Which figure shows lines that are perpendicular? 1. _____



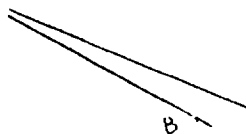
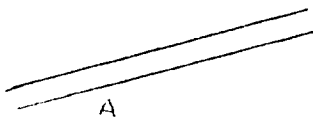
2. Which figure shows lines that are perpendicular? 2. _____



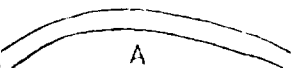
3. Which figure is not constructed of perpendicular lines? 3. _____



4. Which lines look as if they are parallel? 4. _____



5. Which lines look as if they are parallel? 5. _____



LEVEL E

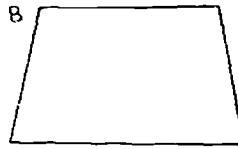
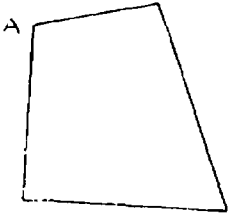
Name _____

GEOMETRY

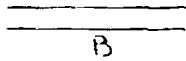
Date _____

Skill 1 (Page 2 of 2 pages)

6. Which figure looks as if it had parallel lines? 6. _____



7. Which of the following figures show intersecting lines?



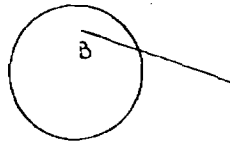
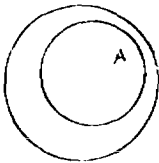
7. _____

8. What is the name of the intersection of these two lines?



8. _____

9. Which of the following figures show intersecting lines?



9. _____

10. Which of the following are congruent line segments?



10. _____

LEVEL E

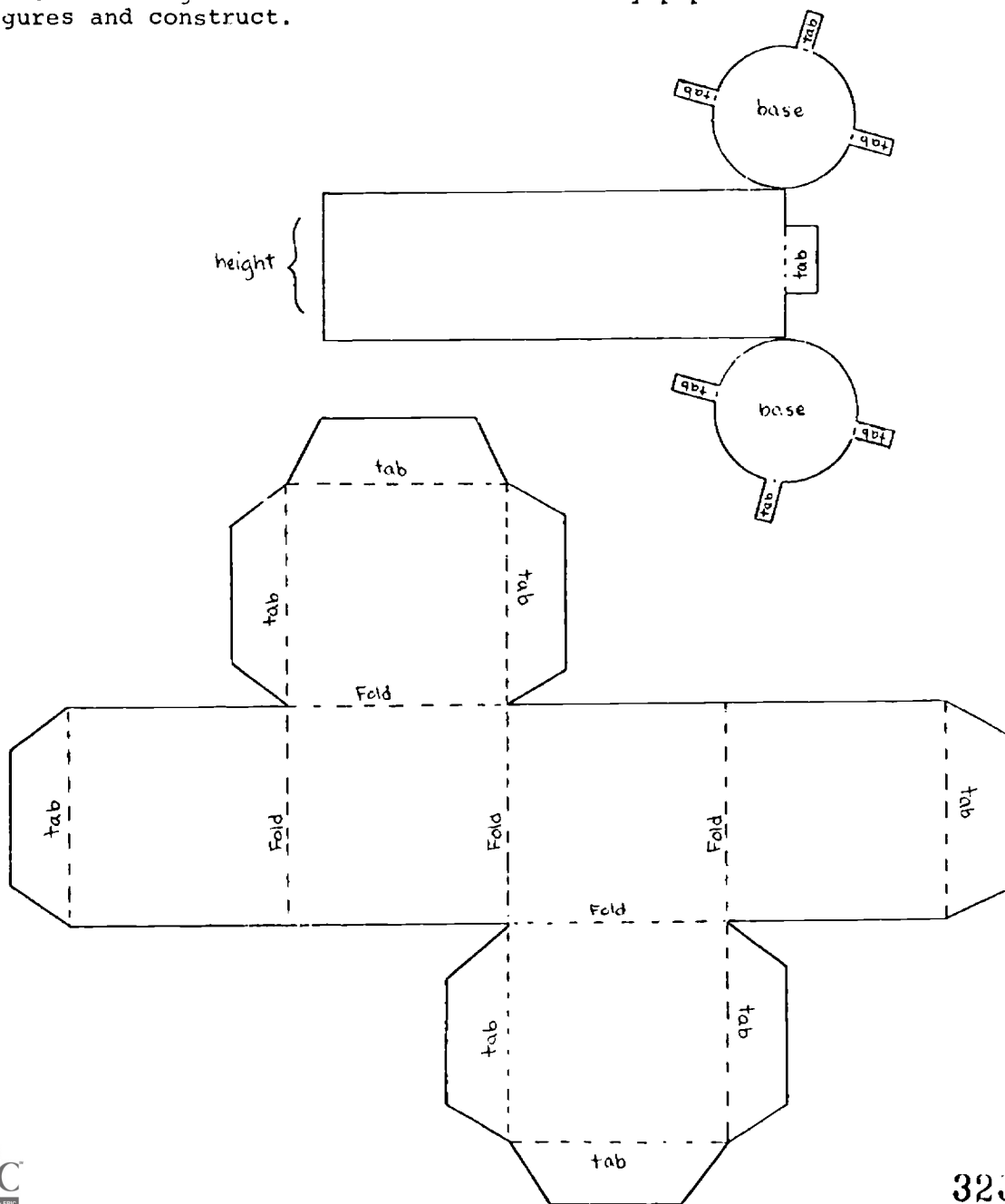
Name _____

GEOMETRY

Date _____

Skill 3

Cut out the figures and transfer them to heavy paper. Then cut out figures and construct.



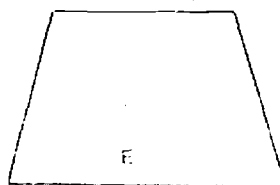
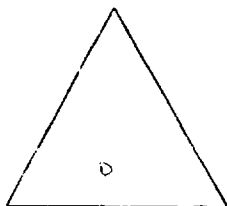
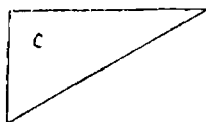
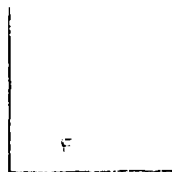
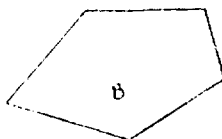
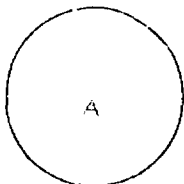
LEVEL E

Name _____

GEOMETRY

Date _____

Skill 4



1. Of the figures above, which figure is the picture of an equilateral triangle?

1. _____

2. Of the figures above, which figure is the picture of a right triangle?

2. _____

3. Of the figures above, which figure is the picture of a quadrilateral?

3. _____

4. What is the name of this figure?



- a. equilateral triangle
b. quadrilateral
c. right triangle

4. _____

5. What is the name of this figure?



- a. equilateral triangle
b. right triangle
c. quadrilateral

5. _____

Name _____

Date _____

1. Use your compass to draw a circle with a $1\frac{1}{2}$ inch radius that has point B as its center. You may need to use your ruler to get the right measurement on your compass.

2. Use your compass to draw a circle with a diameter of 2 inches.

LEVEL E

Name _____

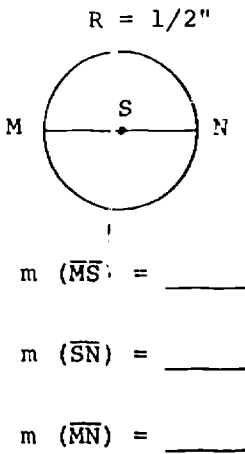
GEOMETRY

Date _____

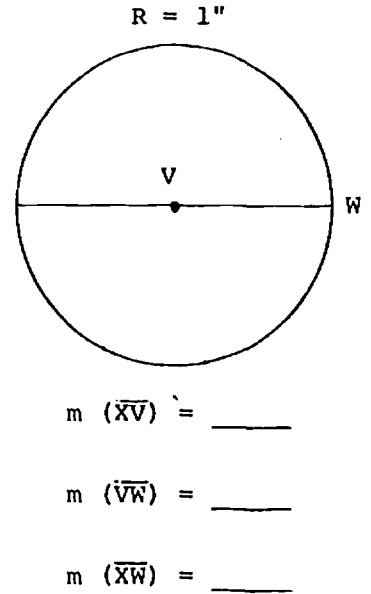
Skill 5 (Page 2 of 2 pages)

Measure each radius and diameter in inches.

3.



4. X



5. The length of a diameter of a circle is _____
times the length of a radius of a circle.

LEVEL E

GEOMETRY

Skill 6

Name _____

Date _____

Give the missing numbers.

1. 2 pounds = _____ ounces.

3. 5,280 ft. = _____ mile

2. 1 ton = _____ pounds

4. 6,000 lb. = _____ tons

5. If a turkey weighs 24 pounds and 7 ounces, how many ounces does it weigh?

5. _____

6. If a car weighs 1 ton and 1287 pounds, how many pounds does it weigh?

6. _____

7. 2 tons 900 pounds
+ 1 ton 1300 pounds

=

8. 1 mile 756 feet
+ 3 miles 4524 feet

=

9. 4 pounds 10 ounces
- 1 pound 14 ounces

10. 3 tons 456 pounds
- 1 ton 983 pounds

LEVEL E

Name _____

GEOMETRY

Date _____

Skill 8, 9

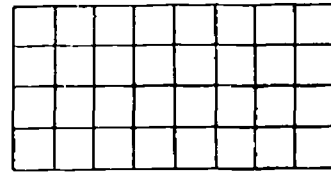
Give the surface area of each figure. Use square units.

1.



1. _____

2.



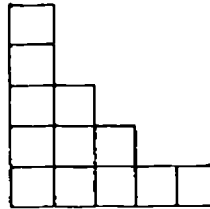
2. _____

3.



3. _____

4.



4. _____

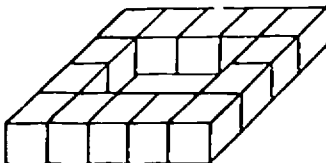
5.



5. _____

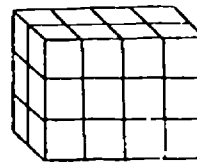
Give the volume of each figure. Use cubic units.

6.



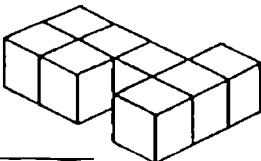
6. _____

7.



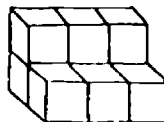
7. _____

8.



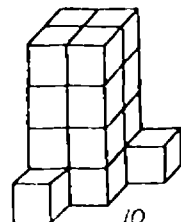
8. _____

9.



9. _____

10.



10. _____

LEVEL E

Name _____

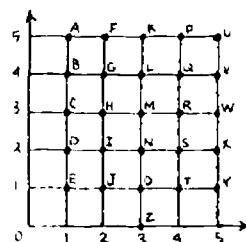
GEOMETRY

Date _____

Skill 10

Use the number plane to write each of the words as a set of number pairs.

1. TURTLE _____
2. GROVE _____
3. MONKEY _____
4. SURF _____
5. GARGLE _____



Use the number plane to name the words.

1. (4,5), (3,4), (1,5), (5,1) _____
2. (3,1), (1,3), (1,1), (1,5), (3,2) _____
3. (2,3), (1,5), (4,5), (4,5), (5,1) _____
4. (1,3), (3,1), (4,4), (5,5), (2,2), (3,2), (1,5) _____
5. (1,3), (2,3), (4,3), (2,2), (4,2), (4,1), (3,3), (1,5), (4,2) _____

LEVEL E

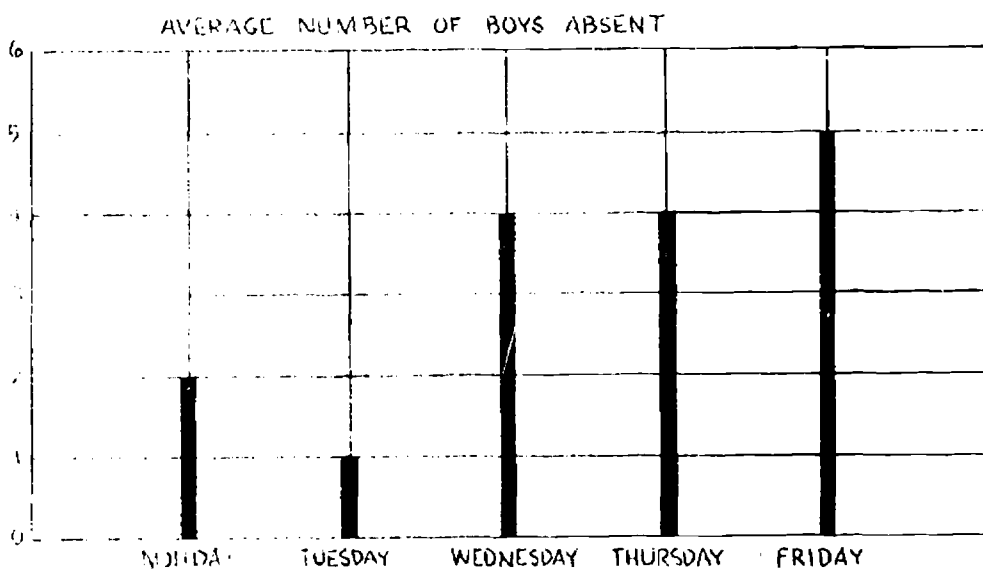
Name _____

GEOMETRY

Date _____

Skill 11 (Page 1 of 2 pages)

Graph for problems 1 through 3:



1. On which day do we find the most number of boys absent?

1. _____

2. On which day do we find the least number of boys absent?

2. _____

3. Which two days do we find the number of absences to be equal?

3. _____

LEVEL E

Name _____

GEOMETRY

Date _____

Skill 11 (Page 2 of 2 pages)

4. Make a pictograph showing the following information:

Monday 1

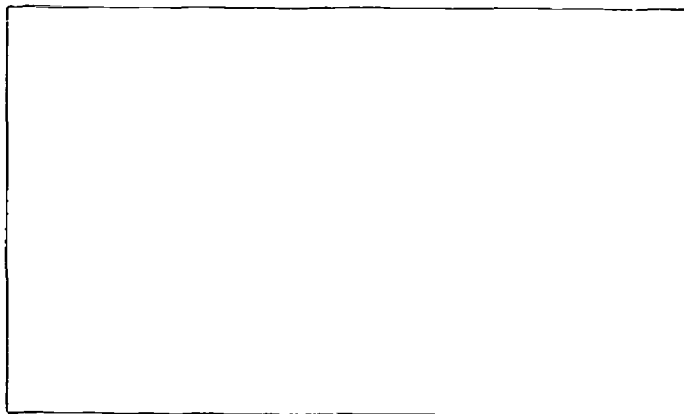
Number of Televisions Sold in
One Week

Tuesday 0

Wednesday 2

Thursday 4

Friday 6



5. Make a line graph illustrating Jack's spelling test scores.

95%

30%

75%

80%

100%

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
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LEVEL E

Name _____

TIME

Date _____

Skill 1, 2 (Page 1 of 2 pages)

Choose the correct answer.

1. Many schools start at 8:00 _____.

a. A.M.

b. P.M.

2. We celebrate New Year's Eve on December 31st.

The New Year starts at _____.

a. noon

b. midnight

3. Sam's plane from New York left at 2:30 A.M.

Did he go to the airport in the middle of the afternoon
or in the middle of the night?

4. Some Saturday afternoon movies start at 2:00 o'clock.

a. A.M.

b. P.M.

5. We use A.M. after _____ and before _____.

LEVEL E

Name _____

TIME

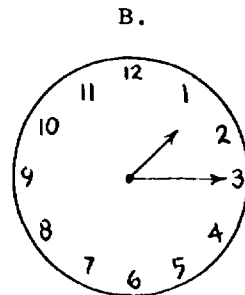
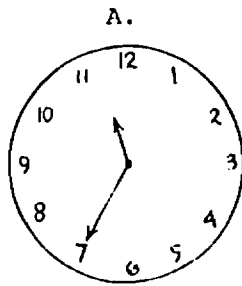
Date _____

Skill 1, 2 (Page 2 of 2 pages)

Solve these problems.

6. The tardy bell rings at 7:50 and class begins at 8:00. How many minutes have gone by?

7. How many minutes have passed between the time shown on clock A and clock B?



8. The first class begins at 8:10 and ends at 8:50. How many minutes does the class last?

9. Jack won the race. The race began at 2:30. His time was one minute. What time did he cross the finish line?

10. Ann began reading at 10:45 A.M. She read until 11:30 A.M. How many minutes did she read?

LEVEL E

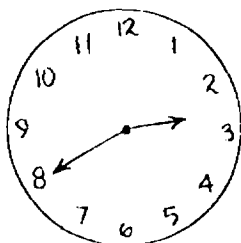
Name _____

TIME

Date _____

Skill 3 (Page 1 of 4 pages)

Use the pictured clock to answer questions 1, 2, and 3.



1. a. 1 hour and 30 minutes later than the time shown _____
b. 2 hours and 30 minutes earlier than the time shown _____
c. 3 hours and 30 minutes later than the time shown _____

2. What time will it be $2\frac{1}{2}$ hours from the time shown on this clock?
2. _____

3. What was the time $1\frac{1}{2}$ hours earlier than the time shown on this clock face?
3. _____

4. Bob left home at 8:30 A.M. He returned in 1 hour and 30 minutes. What time was it when he got home?
4. _____

5. Lunch period begins at 11:30. Each section of the fourth year class will go to lunch at 3 minute intervals. What time will it be when the 6th section goes to lunch?
5. _____

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 2 of 4 pages)

6. Plane

| | Leaves | Arrives | Leaves | Arrives |
|----|------------|--------------|--------------|-----------|
| | Cleveland | Jacksonville | Jacksonville | Nashville |
| A. | 9:00 A.M. | 11:30 A.M. | 12:30 A.M. | 2:30 P.M. |
| B. | 11:10 A.M. | 1:20 P.M. | 2:00 P.M. | 5:05 P.M. |

1. Plane A. arrives in Jacksonville at: _____
2. Plane B. leaves Jacksonville at: _____
3. Plane B. arrives in Nashville at: _____
4. Plane A. leaves Cleveland at : _____

7. Plane

| | Leaves | Arrives | Leaves | Arrives |
|-----|-----------|-----------|------------|------------|
| | Chicago | St. Louis | St. Louis | Dallas |
| #69 | 9:05 A.M. | 9:55 A.M. | 10:15 A.M. | 11:35 A.M. |
| #16 | 1:15 P.M. | 1:57 P.M. | 2:18 P.M. | 3:03 P.M. |

1. Plane #69 arrives in St. Louis, in the morning, at: _____
2. Plane #16 leaves St. Louis, in the afternoon, at: _____
3. How many minutes does #69 plane stay in St. Louis? _____

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 4 of 4 pages)

10. Plane

| | Leaves | Arrives | Leaves | Arrives |
|------|-----------|-----------|------------|------------|
| | St. Louis | Chicago | Chicago | Cleveland |
| #69 | 9:00 A.M. | 9:57 A.M. | 10:18 A.M. | 11:00 A.M. |
| #143 | 1:12 P.M. | 2:02 P.M. | 2:31 P.M. | 3:14 P.M. |

1. If you fly from Chicago to Cleveland, leaving before noon, what time will you leave?

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 3 of 4 pages)

Bus

8.

| | Leaves | Arrives | Leaves | Arrives |
|----|-----------|-----------|-----------|--------------|
| | Melbourne | Daytona | Daytona | Jacksonville |
| A. | 3:30 A.M. | 5:00 A.M. | 5:15 A.M. | 7:15 A.M. |
| B. | 5:15 P.M. | 6:45 P.M. | 7:00 P.M. | 8:45 P.M. |

1. Bus A. arrives in Jacksonville at: _____
2. Bus B. leaves Daytona at: _____
3. Which bus arrives in Jacksonville for breakfast? _____

Plane

9.

| | Leaves | Arrives | Leaves | Arrives |
|----|-----------|-----------|-----------|------------|
| | Melbourne | Tampa | Tampa | Houston |
| A. | 1:45 A.M. | 2:45 A.M. | 3:15 A.M. | 5:30 A.M. |
| B. | 8:15 P.M. | 9:15 P.M. | 9:45 P.M. | 11:55 P.M. |

1. Plane A. arrives in Tampa at: _____
2. Plane B. arrives in Houston at: _____
3. Plane A. leaves Tampa at: _____

OF
ED
4814



LEVEL E

Name _____

TIME

Date _____

Skill 4

(Teacher Note: See problem 5.)

1. In fifteen seconds it will be exactly 9:00. The second hand is now on:

- (a) 3
- (b) 6
- (c) 9
- (d) 4

2. If a clock runs for 2 minutes and 30 seconds, the second hand goes around:

- (a) $1\frac{1}{2}$ times
- (b) $2\frac{1}{2}$ times
- (c) $3\frac{1}{2}$ times
- (d) 1 time

3. Jane said, "I will be there in half a minute."
How many seconds would this be?

3. _____

4. How many seconds in a minute?

4. _____

How many minutes in an hour?

5. Using a clock, have students identify time:

_____ hour, _____ minute, _____ second

LEVEL E

Name _____

TIME

Date _____

Skill 5

1. Complete this calendar for December 1970.

| 1970 D E C E M B E R 1970 | | | | | | |
|---|------|-------|------|-------|------|------|
| SUN. | MON. | TUES. | WED. | THUR. | FRI. | SAT. |
| | | 1 | | | | |
| | | | 9 | | | 12 |
| | | | | 17 | | |
| 20 | | | | | | |
| | | 29 | | 31 | | |

2. From the calendar:

What date is the 2nd Friday in December? _____

3. Write December twenty-first, nineteen seventy, using numerals.

4. How many days are in the month of December? _____

5. Paul knows that if November 5 is on a Saturday he can find what day November 15 is by:

What day is it? _____

LEVEL E

Name _____

TIME

Date _____

Skill 6

1. Joan washed her hair on Saturday. It took 15 minutes to shampoo, $\frac{1}{2}$ hour to put it on curlers, 40 minutes to dry, and 30 minutes to comb. She spent _____ hours, _____ minutes doing her hair.

2. It took Jack 9 weeks to learn his multiplication facts. It took Jill 17 days to learn hers. How many days longer did it take Jack to learn his?

3. 30 days in a month and 12 months in a year.

| | | |
|----------|--------|---------|
| 6 yrs. | 4 mos. | 20 days |
| - 3 yrs. | 5 mos. | 22 days |
| <hr/> | | |
| yrs. | mos. | days |

4. 30 days in a month and 12 months in a year.

| | |
|----------|---------|
| 3 mos. | 17 days |
| + 9 mos. | 20 days |
| <hr/> | |
| mos. | days |

5. 60 seconds in a minute and 60 minutes in an hour.

| | | |
|---------|----------|----------|
| 7 hours | 40 mins. | 22 secs. |
| + | 30 mins. | 44 secs. |
| <hr/> | | |
| hours | mins. | secs. |

LEVEL E

Name _____

MONEY

Date _____

Skill 1 (Page 1 of 2 pages)

1. Circle the names of the coins which you would receive as change if you bought a ship model for \$4.15 and gave the clerk \$5.00.

half-dollar quarter dime nickel penny

2. Circle the names of the money which you would receive as change if you bought a book for \$3.29 and gave the clerk \$5.00.

half-dollar quarter 2 dimes nickel
penny one dollar

3. Circle the names of the coins which you would receive as change if you bought a lunch box for \$2.64 and gave the sales clerk \$3.00.

half-dollar quarter dime nickel penny

4. What are the greatest number of the following coins which you could receive if you bought a pair of slacks for \$7.99 and gave the sales clerk \$10.00?

____ half-dollars ____ pennies ____ quarters

5. Circle the names of the money which you would receive as change if you bought groceries totaling \$8.75, and gave the clerk \$10.00.

half-dollar quarter dime nickel
penny one dollar

LEVEL E

Name _____

MONEY

Date _____

Skill 1 (Page 2 of 2 pages)

6. Circle the names of the coins which you would receive as change if you bought a baseball glove for \$6.89 and gave the clerk \$7.00.

dime nickel quarter penny

7. Circle the names of the coins which you would receive as change if you bought a model car for \$1.49 and gave the clerk \$2.00.

penny dime half-dollar nickel

8. Circle the name of the coins which you would receive as change if you bought a pair of shoes for \$6.59 and you gave the clerk \$6.75.

nickel penny dime quarter

9. Circle the name of the coins which you would receive as change if you bought a toy for 74¢ and gave the clerk \$1.00.

penny nickel quarter dime

10. Circle the names of the money which you would receive as change if you bought a football for \$3.64 and gave the clerk \$5.00.

dime penny half-dollar
quarter one dollar

LEVEL E

MONEY

Skill 2

Name _____

Date _____

Solve.

$$\begin{array}{r} 1. \quad 32¢ \\ + 48¢ \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \$5.70 \\ - 5.45 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad \$.96 \\ - .09 \\ \hline \end{array}$$

$$4. \quad \$7.50 + \$.35 =$$

$$\begin{array}{r} 5. \quad \$ 1.87 \\ .17 \\ + 26.08 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \$9.06 \\ + 2.48 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad \$21.94 \\ 1.09 \\ 7.17 \\ \hline .25 \end{array}$$

$$\begin{array}{r} 8. \quad \$1.45 \\ 2.35 \\ .39 \\ .19 \\ .22 \\ \hline .17 \end{array}$$

$$9. \quad \$25.38 - \$14.56 =$$

$$10. \quad \$3.97 - \$1.26 =$$

LEVEL E

Name _____

MONEY

Date _____

Skill 4 (Page 1 of 2 pages)

Solve. Label.

1. Carol bought a book for 59¢, a stuffed toy animal for \$1.98, and a whistle for 39¢. How much change would Carol receive if she gave the clerk \$10?

1. _____

2. Scott bought a paint set for \$1.25, a toy truck for 89¢, and a gift for his mother for \$1.75. How much change would Scott receive if he gave the clerk \$5?

2. _____

3. Lynn bought a blouse for \$3.98 and a skirt for \$5.25. What change would Lynn receive if she gave the clerk \$10?

3. _____

4. Don bought a hot dog for 30¢, some French fries for 25¢, a large coke for 25¢ and two nickel candy bars. How much change would Don receive if he gave the clerk \$5?

4. _____

5. Chris bought a stamp collection for \$2.75, a book to put them in for 89¢ and a guide for collecting other stamps for \$1.25. How much change would Chris receive if he gave the clerk \$5?

5. _____

LEVEL E

Name _____

MONEY

Date _____

Skill 4 (Page 2 of 2 pages)

6. Tom bought a ball glove for \$4.95 and a baseball for \$3.00. How much change would he receive if he gave the clerk \$10?

6. _____

7. Willy bought a hot dog for 30¢, a drink for 15¢, a bar of candy for 10¢ and a bag of potato chips for 25¢. How much change would he receive if he gives the salesman \$1?

7. _____

8. Susie saved her allowance for five weeks. She gets \$2.00 a week allowance. If she buys a dress for \$6.98, how much money will she have left?

8. _____

9. Billy mowed 8 lawns at \$1.25 each. He bought a badminton set for \$6.95. What amount does he have left?

9. _____

10. The 4 boys in the club each paid \$2.00 dues. They bought a football game for \$5.49 with the money. What amount do they have left?

10. _____

NUMERATION

Name _____

Date _____

Skill 1, 2 (Page 1 of 2 pages)

Fill in the blanks in this sequence.

1. 624,327; 624,328; 624,329; 624,330; 624,331; 624,332; 624,333
2. 999,994; 999,995; 999,996; 999,997; 999,998; 999,999; 1,000,000
3. 253,839; 253,840; 253,841; 253,842; 253,843; 253,844; 253,845
4. 253,108; 253,109; 253,110; 253,111; 253,112; 253,113; 253,114
5. 207,898; 207,899; 207,900; 207,901; 207,902; 207,903; 207,904

Write the number words or the number for the following:

1. Seventy-five 1. 75
2. 628 2. six hundred twenty-eight
3. 950 3. nine hundred fifty
4. Eight thousand, three hundred, twenty-five 4. 8,325
5. 3002 5. three thousand, two

LEVEL E

Name _____

NUMERATION

Date _____

Skill 1, 2 (Page 2 of 2 pages)

Give the place value of the underlined digit.

1. 695,643

1. thousand

2. 926,408

2. ten thousand

3. 567,904

3. hundred thousand

4. 796,713

4. ten thousand

5. 1,520,427

5. million

Write these numbers in expanded notation.

1. 8,260 = 8,000 + 200 + 60 + 0

2. 182,952 = 100,000 + 80,000 + 2,000 + 900 + 50 + 2

Write the following using number words.

3. 503,762 five hundred three thousand, seven hundred
sixty-two

4. 1,025,700 one million, twenty-five thousand, seven
hundred

Complete the place value chart.

| | Hundred Thousands | Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------|----------------------|------------------|-----------|----------|------|------|
| 476,393 | 4 | 7 | 6 | 3 | 9 | 3 |
| 109,006 | 1 | 0 | 9 | 0 | 0 | 6 |

LEVEL E

NUMERATION

Skill 3

Name _____

Date _____

Use $>$ or $<$ in the \bigcirc .

1. $6,289 \bigcirc 4,280$

2. $836,420 \bigcirc 82,432$

3. $809,604 \bigcirc 809,640$

4. $44,952 \bigcirc 43,952$

5. $389,420 \bigcirc 389,412$

6. $763,982 \bigcirc 736,982$

7. $286,589 \bigcirc 286,598$

8. $572,361 \bigcirc 572,631$

9. $998,723 \bigcirc 989,723$

10. $289,767 \bigcirc 273,767$

LEVEL E

Name _____

NUMERATION

Date _____

Skill 4

Write the Roman numeral or Arabic base 10 numeral for the following:

1. 9 ~~IX~~

2. 44 ~~XLIV~~

3. 12 ~~XII~~

4. 18 ~~XVIII~~

5. XIX 19

6. MCMLXX 1970

7. 500 D

8. 50 50

9. 20 ~~XX~~

10. 1000 M

LEVEL E

Name _____

NUMERATION

Date _____

In-Depth (Odd and Even Numbers)

If the operations below are done, will the answers be odd or even?

- | | ODD | EVEN |
|------------------|------------|-------------|
| 1. Even + Even = | _____ | <u>even</u> |
| 2. Even x odd = | _____ | <u>even</u> |
| 3. Even - odd = | <u>odd</u> | _____ |

4. Select the letter of the rule that applies to the example

$$11 - 2 = 9.$$

- (a) odd - odd = odd
- (b) odd - odd = even
- (c) odd - even = odd
- (d) odd - even = even

4. C

5. Give an example for the rule "an odd number minus an odd number equals an even number."

5. answers will vary

LEVEL: E

ADDITION AND SUBTRACTION

Skill 1

Name _____

Date _____

Fill in the missing addend.

1. 445 + 45 = 45 + 445

2. 250 + 50 = 50 + 250

3. 230 + 21 = 21 + 230

Select the equations which show the commutative principle.

4. a. 39 + 253 = 253 + 39

b. 39 + 200 + 50 + 3 = 292

c. 39 + 253 = 39 + 253

5. a. 300 + 72 + 0 = 372 + 37

b. 372 + 37 = 409

c. 372 + 37 = 37 + 372

6. a. 90 + 54 = 90 + 50 + 4

b. 90 + 54 = 144

c. 90 + 54 = 54 + 90

Complete the equations.

7. $8 + 7 = 8 + (2+5)$
 $= (8+2) + 5$
 $= \underline{10} + 5$
 $= \underline{15}$

8. $9 + 9 = 9 + (1+8)$
 $= (9+1) + 8$
 $= \underline{10} + 8$
 $= \underline{18}$

9. $(6+3) - 3 = 6 + (3-3) = \underline{6}$

10. $5 + 7 - 7 = 5 + (\underline{7} - 7) = \underline{5}$

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Write each sentence as a number sentence.

1. 5 is greater than 4.

$$5 > 4$$

2. 863 is less than 922.

$$863 < 922$$

- 3.
- $500 + 40 + 6$
- and 546 name the same number.

$$500 + 40 + 6 = 546$$

4. The sum of 8 and 6 is greater than the sum of
- $9 + 4$
- .

$$8 + 6 > 9 + 4$$

Write $>$, $<$, or $=$ in the \bigcirc .

5. $8 + 2 \bigcirc 3 + 7$

8. $4 + 6 \bigcirc 6 - 4$

6. $6 + 6 \bigcirc 9 + 4$

9. $0 + 5 \bigcirc 5 + 0$

7. $18 - 7 \bigcirc 6 + 9$

10. $8 - 3 \bigcirc 3 + 1$

Skill 3

Use the rule to complete each set of number pairs.

1. The second number is 5 greater than the first.

(1, 6), (2, 7), (3, 8), (4, 9), (5, 10), (6, 11)

2. The second number is 8 less than the first.

(8, 0), (9, 1), (10, 2), (11, 3), (12, 4), (13, 5)

3. The second number is 9 greater than the first.

(1, 10), (2, 11), (3, 12), (4, 13), (5, 14), (6, 15)

4. The second number is 5 less than the first.

(2, 7), (3, 8), (4, 9), (5, 10), (6, 11), (7, 12)

5. The second number is 6 less than the first.

(18, 12), (17, 11), (16, 10), (15, 9), (14, 8), (13, 7)

Complete the number pairs in each set.

6. (6, 3), (8, 5), (7, 4), (9, 6), (3, 0), (5, 2), (10, 7), (11, 8)

7. (3, 3), (4, 4), (5, 5), (6, 6), (7, 7), (8, 8), (9, 9), (10, 10)

8. (5, 11), (6, 12), (7, 13), (8, 14), (9, 15), (4, 10), (3, 9), (2, 8)

9. (3, 12), (5, 14), (2, 11), (5, 14), (4, 13), (8, 17), (6, 15), (0, 9)

10. (7, 3), (8, 4), (9, 5), (10, 6), (11, 7), (12, 8), (13, 9), (6, 2)

LEVEL B

ADDITION AND SUBTRACTION

Skill 4

Name _____

Date _____

Add.

$$\begin{array}{r} 14,965 \\ +26,638 \\ \hline 41,603 \end{array}$$

$$\begin{array}{r} 94,382 \\ +6,439 \\ \hline 100,821 \end{array}$$

$$\begin{array}{r} 17,065 \\ +19,374 \\ \hline 36,439 \end{array}$$

$$\begin{array}{r} 87,682 \\ +19,507 \\ \hline 107,189 \end{array}$$

$$\begin{array}{r} 3,954 \\ 4,163 \\ +5,002 \\ \hline 13,119 \end{array}$$

$$\begin{array}{r} 9,246 \\ 3,052 \\ + 941 \\ \hline 13,239 \end{array}$$

Subtract.

$$\begin{array}{r} 43,521 \\ -4,789 \\ \hline 38,732 \end{array}$$

$$\begin{array}{r} 35,678 \\ -9,780 \\ \hline 25,898 \end{array}$$

$$\begin{array}{r} 5,500 \\ -1,679 \\ \hline 3,821 \end{array}$$

$$\begin{array}{r} 60,001 \\ -6,789 \\ \hline 53,212 \end{array}$$

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5 (Page 1 of 2 pages)

Solve the problems. Label.

1. The fifth and sixth grades sold 589 pencils. the third and fourth grades sold 600 pencils and the first and second grades sold 450 pencils. How many pencils did all the children sell together?

1. 1639 pencils

2. Mary's room was collecting bottle caps for the math class. They collected 360 on Monday, 398 on Tuesday, and 1,000 on Wednesday. How many bottle caps did they collect on Tuesday and Wednesday?

2. 1398 bottle caps

3. John was saving popsicle sticks. He collected 200 the first week, 370 the next week, and 210 the next. How many sticks did he have then?

3. 780 sticks

4. Mary sold 66 cookies on Thursday, 182 on Friday and 378 on Saturday. Susan sold a total of 750 cookies. How many cookies did the 2 girls sell?

4. 1376 cookies

5. Jim saved \$16.35 in one year, \$23.52 the next and \$126.78 the third year. How much money does he have now?

5. \$ 166.65

LEVEL E

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 5 (Page 2 of 2 pages)

Solve the problems.

6. There were 812 birds in the park. There were 201 redbirds, 199 bluebirds, 87 pigeons and 4 parrots and the rest were robins. How many robins were in the park?

6. 320 robins

7. There were 962 pupils in school. 507 were boys. How many girls were there?

7. 455 girls

8. If your heart beats 70 times a minute when you are sitting down and 120 times a minute when you are walking, how much faster does it beat when you walk?

8. 50 times a min

9. Mr. Brown's music class collected 543 old records. 296 of these records were jazz records and 165 were folk songs, the rest were patriotic. How many patriotic records?

9. 132 patriotic records

10. There were 900 people at the tulip festival. 317 were men, 450 were women, how many children were there at the tulip festival?

10. 133 children

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1

Name the missing numerals.

1. $9 + 9 + 9 + 9 + 9 + 9 =$ 54

$6 \times 9 =$ 54

6. $5 + 5 + 5 + 5 + 5 =$ 25

$5 \times 5 =$ 25

2. $10 + 10 + 10 + 10 + 10 + 10 =$ 60

$6 \times 10 =$ 60

7. $64 + 64 + 64 =$ 192

$3 \times 64 =$ 192

3. $81 + 81 + 81 + 81 + 81 + 81 =$ 486

$6 \times 81 =$ 486

8. $54 + 54 + 54 + 54 =$ 216

$4 \times 54 =$ 216

4. $79 + 79 + 79 + 79 + 79 =$ 395

$5 \times 79 =$ 395

9. $29 + 29 + 29 =$ 87

$3 \times 29 =$ 87

5. $93 + 93 + 93 + 93 =$ 372

$4 \times 93 =$ 372

10. $46 + 46 + 46 + 46 =$ 184

$4 \times 46 =$ 184

LEVEL E

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2 (Page 1 of 2 pages)

Timed: 4 minutes

Name the products.

| | | | | | | | | |
|--|--|---|---|---|--|---|---|--|
| $\begin{array}{r} 8 \\ 2 \\ \hline 16 \end{array}$ | $\begin{array}{r} 2 \\ 6 \\ \hline 12 \end{array}$ | $\begin{array}{r} 1 \\ 8 \\ \hline 8 \end{array}$ | $\begin{array}{r} 0 \\ 6 \\ \hline 0 \end{array}$ | $\begin{array}{r} 1 \\ 9 \\ \hline 9 \end{array}$ | $\begin{array}{r} 7 \\ 2 \\ \hline 14 \end{array}$ | $\begin{array}{r} 8 \\ 1 \\ \hline 8 \end{array}$ | $\begin{array}{r} 1 \\ 9 \\ \hline 9 \end{array}$ | $\begin{array}{r} 7 \\ 9 \\ \hline 63 \end{array}$ |
|--|--|---|---|---|--|---|---|--|

| | | | | | | | | |
|--|---|---|--|--|---|---|---|--|
| $\begin{array}{r} 2 \\ 7 \\ \hline 14 \end{array}$ | $\begin{array}{r} 6 \\ 1 \\ \hline 6 \end{array}$ | $\begin{array}{r} 9 \\ 1 \\ \hline 9 \end{array}$ | $\begin{array}{r} 9 \\ 7 \\ \hline 63 \end{array}$ | $\begin{array}{r} 2 \\ 8 \\ \hline 16 \end{array}$ | $\begin{array}{r} 7 \\ 1 \\ \hline 7 \end{array}$ | $\begin{array}{r} 1 \\ 6 \\ \hline 6 \end{array}$ | $\begin{array}{r} 0 \\ 7 \\ \hline 0 \end{array}$ | $\begin{array}{r} 6 \\ 9 \\ \hline 54 \end{array}$ |
|--|---|---|--|--|---|---|---|--|

| | | | | | | | | |
|---|--|---|--|---|--|--|--|--|
| $\begin{array}{r} 1 \\ 7 \\ \hline 7 \end{array}$ | $\begin{array}{r} 6 \\ 5 \\ \hline 30 \end{array}$ | $\begin{array}{r} 0 \\ 8 \\ \hline 0 \end{array}$ | $\begin{array}{r} 9 \\ 2 \\ \hline 18 \end{array}$ | $\begin{array}{r} 0 \\ 9 \\ \hline 0 \end{array}$ | $\begin{array}{r} 6 \\ 2 \\ \hline 12 \end{array}$ | $\begin{array}{r} 2 \\ 9 \\ \hline 18 \end{array}$ | $\begin{array}{r} 7 \\ 3 \\ \hline 21 \end{array}$ | $\begin{array}{r} 5 \\ 7 \\ \hline 35 \end{array}$ |
|---|--|---|--|---|--|--|--|--|

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 6 \\ 3 \\ \hline 18 \end{array}$ | $\begin{array}{r} 9 \\ 9 \\ \hline 81 \end{array}$ | $\begin{array}{r} 3 \\ 7 \\ \hline 21 \end{array}$ | $\begin{array}{r} 6 \\ 4 \\ \hline 24 \end{array}$ | $\begin{array}{r} 5 \\ 9 \\ \hline 45 \end{array}$ | $\begin{array}{r} 7 \\ 7 \\ \hline 49 \end{array}$ | $\begin{array}{r} 3 \\ 8 \\ \hline 24 \end{array}$ | $\begin{array}{r} 6 \\ 6 \\ \hline 36 \end{array}$ | $\begin{array}{r} 3 \\ 9 \\ \hline 27 \end{array}$ |
|--|--|--|--|--|--|--|--|--|

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 7 \\ 5 \\ \hline 35 \end{array}$ | $\begin{array}{r} 4 \\ 6 \\ \hline 24 \end{array}$ | $\begin{array}{r} 5 \\ 8 \\ \hline 40 \end{array}$ | $\begin{array}{r} 9 \\ 5 \\ \hline 45 \end{array}$ | $\begin{array}{r} 9 \\ 3 \\ \hline 27 \end{array}$ | $\begin{array}{r} 5 \\ 6 \\ \hline 30 \end{array}$ | $\begin{array}{r} 4 \\ 7 \\ \hline 28 \end{array}$ | $\begin{array}{r} 8 \\ 5 \\ \hline 40 \end{array}$ | $\begin{array}{r} 8 \\ 8 \\ \hline 64 \end{array}$ |
|--|--|--|--|--|--|--|--|--|

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| $\begin{array}{r} 4 \\ 9 \\ \hline 36 \end{array}$ | $\begin{array}{r} 7 \\ 4 \\ \hline 28 \end{array}$ | $\begin{array}{r} 8 \\ 6 \\ \hline 48 \end{array}$ | $\begin{array}{r} 8 \\ 3 \\ \hline 24 \end{array}$ | $\begin{array}{r} 7 \\ 6 \\ \hline 42 \end{array}$ | $\begin{array}{r} 6 \\ 7 \\ \hline 42 \end{array}$ | $\begin{array}{r} 9 \\ 4 \\ \hline 36 \end{array}$ | $\begin{array}{r} 8 \\ 9 \\ \hline 72 \end{array}$ | $\begin{array}{r} 7 \\ 8 \\ \hline 56 \end{array}$ |
|--|--|--|--|--|--|--|--|--|

| | | | | | | | | |
|---|--|--|--|--|---|--|---|--|
| $\begin{array}{r} 9 \\ 8 \\ \hline \end{array}$ | $\begin{array}{r} 8 \\ 4 \\ \hline 32 \end{array}$ | $\begin{array}{r} 6 \\ 8 \\ \hline 48 \end{array}$ | $\begin{array}{r} 9 \\ 6 \\ \hline 54 \end{array}$ | $\begin{array}{r} 8 \\ 7 \\ \hline 56 \end{array}$ | $\begin{array}{r} 6 \\ 0 \\ \hline 0 \end{array}$ | $\begin{array}{r} 9 \\ 3 \\ \hline 27 \end{array}$ | $\begin{array}{r} 7 \\ 0 \\ \hline 0 \end{array}$ | $\begin{array}{r} 4 \\ 8 \\ \hline 32 \end{array}$ |
|---|--|--|--|--|---|--|---|--|

LEVEL E

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Skill 2 (Page 2 of 2 pages)

Timed: 3 minutes

Name the quotients.

$$\begin{array}{r} 9 \\ 7 \overline{) 63} \end{array}$$

$$\begin{array}{r} 7 \\ 8 \overline{) 56} \end{array}$$

$$\begin{array}{r} 8 \\ 8 \overline{) 64} \end{array}$$

$$\begin{array}{r} 3 \\ 9 \overline{) 27} \end{array}$$

$$\begin{array}{r} 5 \\ 7 \overline{) 35} \end{array}$$

$$\begin{array}{r} 6 \\ 9 \overline{) 54} \end{array}$$

$$\begin{array}{r} 2 \\ 8 \overline{) 16} \end{array}$$

$$\begin{array}{r} 7 \\ 2 \overline{) 14} \end{array}$$

$$\begin{array}{r} 6 \\ 3 \overline{) 18} \end{array}$$

$$\begin{array}{r} 7 \\ 5 \overline{) 35} \end{array}$$

$$\begin{array}{r} 9 \\ 4 \overline{) 36} \end{array}$$

$$\begin{array}{r} 7 \\ 4 \overline{) 28} \end{array}$$

$$\begin{array}{r} 4 \\ 6 \overline{) 24} \end{array}$$

$$\begin{array}{r} 9 \\ 9 \overline{) 81} \end{array}$$

$$\begin{array}{r} 5 \\ 6 \overline{) 30} \end{array}$$

$$\begin{array}{r} 6 \\ 1 \overline{) 6} \end{array}$$

$$\begin{array}{r} 6 \\ 2 \overline{) 12} \end{array}$$

$$\begin{array}{r} 8 \\ 8 \overline{) 72} \end{array}$$

$$\begin{array}{r} 7 \\ 3 \overline{) 21} \end{array}$$

$$\begin{array}{r} 5 \\ 8 \overline{) 40} \end{array}$$

$$\begin{array}{r} 8 \\ 6 \overline{) 48} \end{array}$$

$$\begin{array}{r} 8 \\ 3 \overline{) 24} \end{array}$$

$$\begin{array}{r} 9 \\ 5 \overline{) 45} \end{array}$$

$$\begin{array}{r} 4 \\ 6 \overline{) 42} \end{array}$$

$$\begin{array}{r} 9 \\ 2 \overline{) 18} \end{array}$$

$$\begin{array}{r} 7 \\ 9 \overline{) 63} \end{array}$$

$$\begin{array}{r} 8 \\ 7 \overline{) 56} \end{array}$$

$$\begin{array}{r} 9 \\ 3 \overline{) 27} \end{array}$$

$$\begin{array}{r} 9 \\ 6 \overline{) 54} \end{array}$$

$$\begin{array}{r} 7 \\ 7 \overline{) 49} \end{array}$$

$$\begin{array}{r} 6 \\ 6 \overline{) 36} \end{array}$$

$$\begin{array}{r} 8 \\ 5 \overline{) 40} \end{array}$$

$$\begin{array}{r} 8 \\ 9 \overline{) 72} \end{array}$$

$$\begin{array}{r} 4 \\ 9 \overline{) 36} \end{array}$$

$$\begin{array}{r} 4 \\ 7 \overline{) 28} \end{array}$$

$$\begin{array}{r} 4 \\ 8 \overline{) 32} \end{array}$$

$$\begin{array}{r} 9 \\ 4 \overline{) 36} \end{array}$$

$$\begin{array}{r} 3 \\ 7 \overline{) 21} \end{array}$$

$$\begin{array}{r} 7 \\ 8 \overline{) 56} \end{array}$$

$$\begin{array}{r} 0 \\ 7 \overline{) 0} \end{array}$$

$$\begin{array}{r} 6 \\ 5 \overline{) 30} \end{array}$$

$$\begin{array}{r} 9 \\ 1 \overline{) 9} \end{array}$$

$$\begin{array}{r} 5 \\ 7 \overline{) 35} \end{array}$$

$$\begin{array}{r} 8 \\ 4 \overline{) 32} \end{array}$$

$$\begin{array}{r} 3 \\ 6 \overline{) 18} \end{array}$$

$$\begin{array}{r} 2 \\ 7 \overline{) 14} \end{array}$$

$$\begin{array}{r} 2 \\ 9 \overline{) 18} \end{array}$$

$$\begin{array}{r} 6 \\ 7 \overline{) 42} \end{array}$$

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Skill 3

Draw a circle around the equation which shows the commutative principle.

1. (a) $3 \times 8 = 24$

2. (a) $3 \times 30 = 3 \times (3 \times 10)$

(b) $3 \times 8 = 4 \times (3 \times 2)$

(b) $6 \times 9 = 9 \times 6$

(c) $3 \times 8 = 8 \times 3$

(c) $9 \times 6 = 54$

Supply the missing factors.

3. $8 \times 3 = \underline{3} \times 8$

4. $9 \times \underline{7} = 7 \times 9$

Complete the equations.

5. $(7 \times 4) + (7 \times 3)$

6. $(6 \times 3) + (4 \times 3)$

$= \underline{28} + \underline{21}$

$= (6 + 4) \times \underline{3}$

$= \underline{49}$

$= \underline{10} \times 3$

$= \underline{30}$

7. $3 \times (3 \times 6) = (3 \times 3) \times \underline{6}$

8. $(\underline{3} \times 20) \times 4 = 3 \times (20 \times 4)$

$= \underline{9} \times 6$

$= 3 \times \underline{80}$

$= \underline{54}$

$= \underline{240}$

9. $42 \times 3 = (40 + \underline{2}) \times 3$

10. $5 \times 70 = 5 \times (7 \times 10)$

$= (40 \times 3) + (2 \times 3)$

$= (5 \times \underline{7}) \times 10$

$= \underline{120} + \underline{6}$

$= \underline{35} \times 10$

$= \underline{126}$

$= \underline{350}$

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Skill 4

Name the multiplication rule. Then complete the number pair in each set.

1. $\{(6, 36), (2, 18), (7, \underline{42}), (9, \underline{54}), (4, \underline{24})\}$

Rule: Multiply by 6

2. $\{(63, 7), (27, 3), 54, \underline{6}), (72, \underline{8}), (45, \underline{5})\}$

Rule: Divide by 9

3. $\{(21, 3), (35, 5), (49, \underline{7}), (28, \underline{4}), (63, \underline{9})\}$

Rule: Divide by 7

4. $\{(3, 24), (7, 56), (4, \underline{32}), (9, \underline{72}), (6, \underline{48})\}$

Rule: multiply by 8

5. $\{(1, 5), (3, 15), (9, \underline{45}), (7, \underline{35}), (6, \underline{30})\}$

Rule: multiply by 5

6. $\{(7, 70), (9, 90), (36, \underline{360}), (20, \underline{200}), (78, \underline{780})\}$

Rule: multiply by 10

7. $\{(20, 5), (4, 1), (24, \underline{6}), (40, \underline{10}), (36, \underline{9})\}$

Rule: Divide by 4

8. $\{(24, 4), (36, 6), (54, \underline{9}), (42, \underline{7}), (48, \underline{8})\}$

Rule: Divide by 6

9. $\{(4, 28), (3, 21), (6, \underline{42}), (8, \underline{56}), (5, \underline{35})\}$

Rule: multiply by 7

10. $\{(90, 9), (50, 5), (120, \underline{12}), (270, \underline{27}), (390, \underline{39})\}$

Rule: Divide by 10

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Skill 5

Name the products.

$$\begin{array}{r} 27 \\ \times 5 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 29 \\ \times 4 \\ \hline 116 \end{array}$$

$$\begin{array}{r} 38 \\ \times 3 \\ \hline 114 \end{array}$$

$$\begin{array}{r} 85 \\ \times 4 \\ \hline 340 \end{array}$$

$$\begin{array}{r} 94 \\ \times 3 \\ \hline 282 \end{array}$$

$$\begin{array}{r} 19 \\ \times 4 \\ \hline 76 \end{array}$$

$$\begin{array}{r} 68 \\ \times 6 \\ \hline 408 \end{array}$$

$$\begin{array}{r} 37 \\ \times 7 \\ \hline 259 \end{array}$$

$$\begin{array}{r} 29 \\ \times 9 \\ \hline 261 \end{array}$$

$$\begin{array}{r} 76 \\ \times 4 \\ \hline 304 \end{array}$$

$$\begin{array}{r} 549 \\ \times 2 \\ \hline 1098 \end{array}$$

$$\begin{array}{r} 328 \\ \times 3 \\ \hline 984 \end{array}$$

$$\begin{array}{r} 864 \\ \times 8 \\ \hline 6,912 \end{array}$$

$$\begin{array}{r} 983 \\ \times 7 \\ \hline 6,881 \end{array}$$

$$\begin{array}{r} 7546 \\ \times 9 \\ \hline 67,914 \end{array}$$

$$\begin{array}{r} 783 \\ \times 5 \\ \hline 3,915 \end{array}$$

$$\begin{array}{r} 958 \\ \times 7 \\ \hline 6,706 \end{array}$$

$$\begin{array}{r} 569 \\ \times 7 \\ \hline 3,983 \end{array}$$

$$\begin{array}{r} 7193 \\ \times 8 \\ \hline 57,544 \end{array}$$

$$\begin{array}{r} 64308 \\ \times 5 \\ \hline 321,540 \end{array}$$

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Skill 6

Find the products.

$$3 \times 7 = \underline{21}$$

$$4 \times 8 = \underline{32}$$

$$3 \times 70 = \underline{210}$$

$$4 \times 80 = \underline{320}$$

$$3 \times 700 = \underline{2100}$$

$$4 \times 800 = \underline{3200}$$

$$3 \times 7000 = \underline{21000}$$

$$4 \times 8000 = \underline{32000}$$

Name the products.

$$\begin{array}{r} 48 \\ 10 \\ \hline 480 \end{array}$$

$$\begin{array}{r} 56 \\ 1000 \\ \hline 5,600 \end{array}$$

$$\begin{array}{r} 67 \\ 90 \\ \hline 6,030 \end{array}$$

$$\begin{array}{r} 36 \\ 50 \\ \hline 1,800 \end{array}$$

$$\begin{array}{r} 83 \\ 20 \\ \hline 1,660 \end{array}$$

$$\begin{array}{r} 59 \\ 100 \\ \hline 15,900 \end{array}$$

$$\begin{array}{r} 82 \\ 60 \\ \hline 4,920 \end{array}$$

$$\begin{array}{r} 87 \\ 10,000 \\ \hline 870,000 \end{array}$$

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Skill 7

Name the products.

$$\begin{array}{r} 94 \\ 35 \\ 70 \\ 2 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 88 \\ 88 \\ 704 \\ 704 \\ \hline 7,744 \end{array}$$

$$\begin{array}{r} 46 \\ 24 \\ 184 \\ 92 \\ \hline 1,104 \end{array}$$

$$\begin{array}{r} 62 \\ 17 \\ 434 \\ 62 \\ \hline 1,054 \end{array}$$

$$\begin{array}{r} 73 \\ 29 \\ 657 \\ 146 \\ \hline 2,119 \end{array}$$

$$\begin{array}{r} 39 \\ 26 \\ 234 \\ 78 \\ \hline 1,014 \end{array}$$

$$\begin{array}{r} 68 \\ 39 \\ 612 \\ 204 \\ \hline 2,652 \end{array}$$

$$\begin{array}{r} 47 \\ 81 \\ 47 \\ 316 \\ \hline 3,807 \end{array}$$

$$\begin{array}{r} 57 \\ 57 \\ 399 \\ 285 \\ \hline 3,249 \end{array}$$

$$\begin{array}{r} 99 \\ 58 \\ 792 \\ 495 \\ \hline 5,742 \end{array}$$

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Skill 8, 9

Use the "ladder" method to find the quotients.
check by multiplying. *

$$\begin{array}{r|l} 11 \\ 4 \overline{) 44} & 10 \\ \underline{40} & \\ 4 & \\ \underline{4} & 1 \\ 0 & 11 \end{array}$$

$$\begin{array}{r} 11 \\ 4 \\ \hline 44 \end{array}$$

$$\begin{array}{r|l} 12 \\ 6 \overline{) 72} & 10 \\ \underline{60} & \\ 12 & \\ \underline{12} & 2 \\ 0 & 12 \end{array}$$

$$\begin{array}{r} 12 \\ 6 \\ \hline 72 \end{array}$$

$$\begin{array}{r|l} 11 \\ 9 \overline{) 99} & 10 \\ \underline{90} & \\ 9 & \\ \underline{9} & 1 \\ 0 & 11 \end{array}$$

$$\begin{array}{r} 11 \\ 9 \\ \hline 99 \end{array}$$

$$\begin{array}{r|l} 13 \\ 7 \overline{) 91} & 10 \\ \underline{70} & \\ 21 & \\ \underline{21} & 3 \\ 0 & 13 \end{array}$$

$$\begin{array}{r} 13 \\ 7 \\ \hline 91 \end{array}$$

$$\begin{array}{r|l} 18 \\ 5 \overline{) 90} & 10 \\ \underline{50} & \\ 40 & \\ \underline{40} & 8 \\ 0 & 18 \end{array}$$

$$\begin{array}{r} 18 \\ 5 \\ \hline 90 \end{array}$$

$$\begin{array}{r|l} 13 \\ 3 \overline{) 39} & 10 \\ \underline{30} & \\ 9 & \\ \underline{9} & 3 \\ 0 & 13 \end{array}$$

$$\begin{array}{r} 13 \\ 3 \\ \hline 39 \end{array}$$

$$\begin{array}{r|l} 19 \\ 9 \overline{) 171} & 10 \\ \underline{90} & \\ 81 & \\ \underline{81} & 9 \\ 0 & 19 \end{array}$$

$$\begin{array}{r} 19 \\ 9 \\ \hline 171 \end{array}$$

$$\begin{array}{r|l} 28 \\ 4 \overline{) 112} & 20 \\ \underline{80} & \\ 32 & \\ \underline{32} & 8 \\ 0 & 28 \end{array}$$

$$\begin{array}{r} 28 \\ 4 \\ \hline 112 \end{array}$$

$$\begin{array}{r|l} 23 \\ 8 \overline{) 184} & 20 \\ \underline{160} & \\ 24 & \\ \underline{24} & 3 \\ 0 & 23 \end{array}$$

$$\begin{array}{r} 23 \\ 8 \\ \hline 184 \end{array}$$

$$\begin{array}{r|l} 29 \\ 9 \overline{) 261} & 20 \\ \underline{180} & \\ 81 & \\ \underline{81} & 9 \\ 0 & 29 \end{array}$$

$$\begin{array}{r} 29 \\ 9 \\ \hline 261 \end{array}$$

*Checking done by method illustrated in HM Book 4, p. 184 is also acceptable.

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Skill 10

Label the parts.

- a) quotient
b) divisor
c) dividend
d) remainder

$$\begin{array}{r} \text{a) } \rightarrow 5 \\ \text{b) } \rightarrow 4 \overline{) 23} \leftarrow \text{c) } \\ \underline{20} \\ 3 \leftarrow \text{d) } \end{array}$$

Name the quotients and remainders.

$$\begin{array}{r} 5 \text{ R } 4 \\ 6 \overline{) 52} \\ \underline{48} \\ 4 \end{array}$$

$$\begin{array}{r} 24 \text{ R } 1 \\ 2 \overline{) 49} \\ \underline{40} \\ 9 \\ \underline{8} \\ 1 \end{array}$$

$$\begin{array}{r} 8 \text{ R } 1 \\ 8 \overline{) 65} \\ \underline{64} \\ 1 \end{array}$$

$$\begin{array}{r} 9 \text{ R } 4 \\ 7 \overline{) 67} \\ \underline{63} \\ 4 \end{array}$$

$$\begin{array}{r} 9 \text{ R } 3 \\ 9 \overline{) 84} \\ \underline{81} \\ 3 \end{array}$$

$$\begin{array}{r} 7 \text{ R } 5 \\ 8 \overline{) 61} \\ \underline{56} \\ 5 \end{array}$$

$$\begin{array}{r} 7 \text{ R } 3 \\ 6 \overline{) 45} \\ \underline{42} \\ 3 \end{array}$$

$$\begin{array}{r} 10 \text{ R } 4 \\ 9 \overline{) 94} \\ \underline{90} \\ 4 \end{array}$$

$$\begin{array}{r} 4 \text{ R } 3 \\ 7 \overline{) 31} \\ \underline{28} \\ 3 \end{array}$$

$$\begin{array}{r} 9 \text{ R } 5 \\ 7 \overline{) 68} \\ \underline{63} \\ 5 \end{array}$$

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Skill 11 (Page 1 of 2 pages)

Solve the problems. Label.

1. If there are 35 marbles in each bag, how many marbles would you have if you were given 56 bags of marbles

1. 2,060 marbles

2. If there are 4 quarts in each gallon, how many gallons are there in 2,344 quarts?

2. 586 gallons

3. Sara had 42 cents when she went shopping. She needed pencils. If she paid 6 cents for each pencil, how many pencils could she buy?

3. 7 pencils

4. There are 30 days in November and 24 hours in each day. How many hours are there in November?

4. 720 hours

5. The coach asked 56 boys to line up in rows of 7. How many rows did they have?

5. 8 rows

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Skill 11 (Page 2 of 2 pages)

6. Mary brought 35 suckers to the party.

a. How many suckers will each child get if there are 16 children at the party?

a. 2 suckers

b. How many suckers will be left?

b. 3 suckers

7. If 11 people could ride in one bus, how many could ride in 12 buses?

7. 132 people

8. If there are 5 boxes each containing 6 balls and 7 boxes each containing 7 balls, how many balls are there in all?

8. 84 balls

9. At the carnival Sally spent 85¢ for 5 rides on the ferris wheel. How much did one ride cost if all rides cost the same?

9. 17 ¢

10. There are 480 windows to be washed and 6 men to wash them. How many windows will each man have to clean?

10. 80 windows

LEVEL E

FRACTIONS

Skill 1, 3

Name _____

Date _____

1. In the fraction $\frac{3}{5}$

3 is the numerator
5 is the denominator

3. In the fraction $\frac{7}{9}$

7 is the numerator
9 is the denominator

2. In the fraction $\frac{8}{10}$

10 is the denominator
8 is the numerator


4. In the fraction $\frac{9}{10}$


9 is the numerator
 10 is the denominator

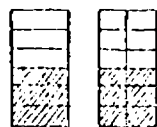
5. In the fraction $\frac{16}{24}$

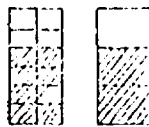
24 is the denominator
 16 is the numerator


Complete each equation.

1.  $\frac{4}{8} = \frac{\boxed{1}}{\boxed{2}}$

3.  $\frac{2}{7} = \frac{6}{\boxed{21}}$

2.  $\frac{3}{6} = \frac{\boxed{6}}{\boxed{12}}$

4.  $\frac{8}{12} = \frac{\boxed{2}}{\boxed{3}}$

5.  $\frac{3}{12} = \frac{1}{\boxed{4}}$

LEVEL E

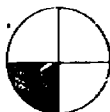
Name _____

FRACTIONS

Date _____

Skill 2

1. Shade $\frac{1}{4}$ of the circle.



3. Circle $\frac{3}{4}$ of the balls.



2. Draw a ring around $\frac{2}{3}$ of the set.

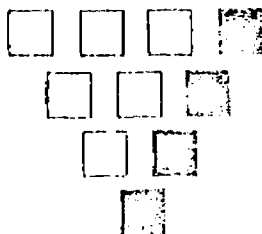


4. Write a fraction to tell the part of the region that is shaded.



4. $\frac{1}{3}$

5. Write a fraction to tell what part of this set is shaded.



5. $\frac{4}{10}$

Complete each equation.

1. $\frac{1}{3}$ of 15 = 5

3. $\frac{1}{4}$ of 24 = 6

2. $\frac{3}{4}$ of 36 = 27

4. $\frac{3}{5}$ of 65 = 39

5. 27 = $\frac{3}{9}$ of 81

LEVEL E

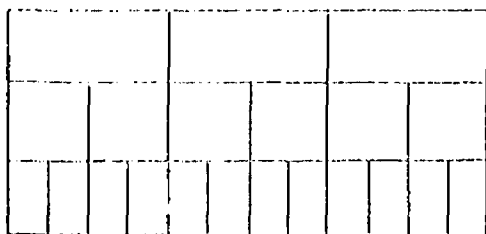
Name _____

FRACTIONS

Date _____

Skill 4, 5

Use the number rods to complete the number sentences. Write $>$, $<$ or $=$ in the \bigcirc .



1. $\frac{2}{6} \bigcirc \frac{2}{3}$

2. $\frac{8}{12} \bigcirc \frac{3}{6}$

3. $\frac{3}{6} \bigcirc \frac{3}{12}$

4. $\frac{2}{12} \bigcirc \frac{2}{6}$

5. $\frac{1}{3} \bigcirc \frac{2}{6}$

Solve the equations.

1. $\frac{3}{9} + \frac{3}{9} = \frac{6}{9}$

2. $\frac{2}{10} + \frac{3}{10} = \frac{5}{10}$

3. $\frac{5}{6} - \frac{3}{6} = \frac{2}{6}$

4. $\frac{3}{6} + \frac{1}{6} + \frac{1}{6} = \frac{5}{6}$

5. $\frac{5}{7} - \frac{3}{7} = \frac{2}{7}$

LEVEL E

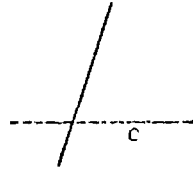
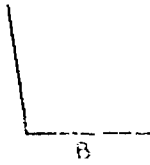
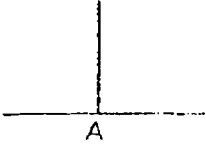
Name _____

GEOMETRY

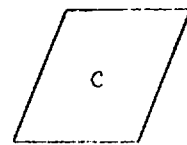
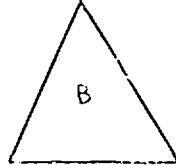
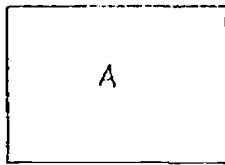
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Skill 1 (Page 1 of 2 pages)

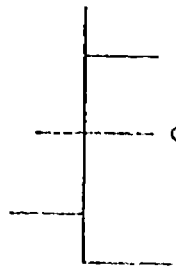
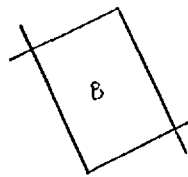
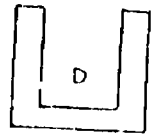
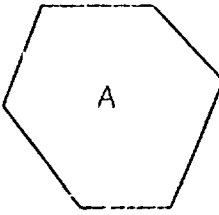
1. Which figure shows lines that are perpendicular? 1. A



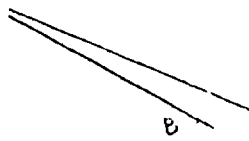
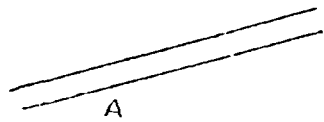
2. Which figure shows lines that are perpendicular? 2. A



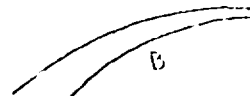
3. Which figure is not constructed of perpendicular lines? 3. A



4. Which lines look as if they are parallel? 4. A



5. Which lines look as if they are parallel? 5. A



LEVEL E

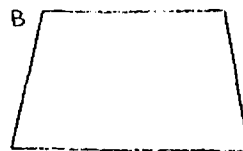
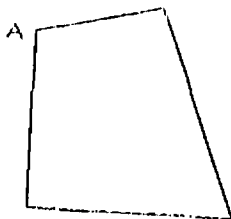
Name _____

GEOMETRY

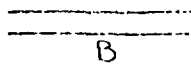
Date _____

Skill 1 (Page 2 of 2 pages)

6. Which figure looks as if it had parallel lines? 6. B



7. Which of the following figures show intersecting lines?



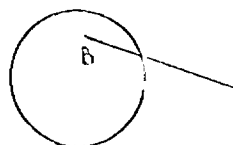
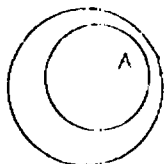
7. A

8. What is the name of the intersection of these two lines?



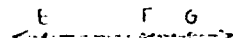
8. Y

9. Which of the following figures show intersecting lines?



9. B

10. Which of the following are congruent line segments?



10. CD and EF

LEVEL E

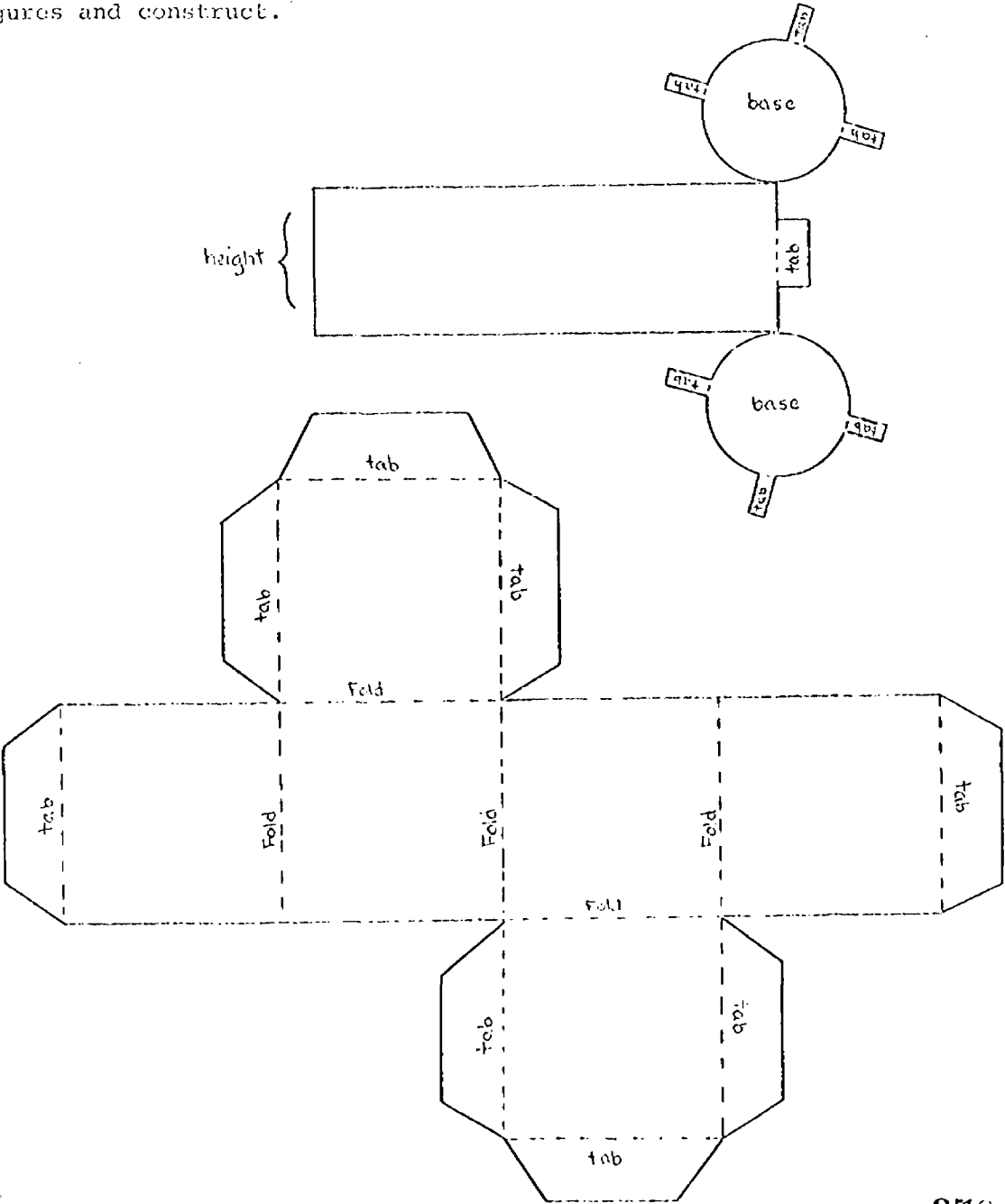
GEOMETRY

Skill 3

Name _____

Date _____

Cut out the figures and transfer them to heavy paper. Then cut out figures and construct.



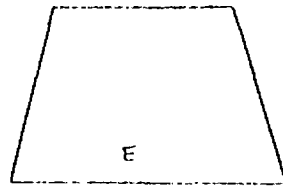
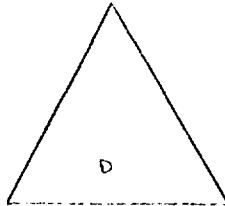
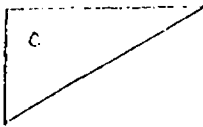
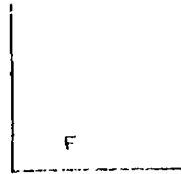
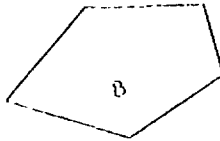
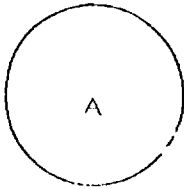
LEVEL E

Name _____

GEOMETRY

Date _____

Skill 4



1. Of the figures above, which figure is the picture of an equilateral triangle?

1. D

2. Of the figures above, which figure is the picture of a right triangle?

2. C

3. Of the figures above, which figure is the picture of a quadrilateral?

3. E

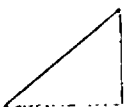
4. What is the name of this figure?



- a. equilateral triangle
b. quadrilateral
c. right triangle

4. a

5. What is the name of this figure?



- a. equilateral triangle
b. right triangle
c. quadrilateral

5. b

LEVEL E

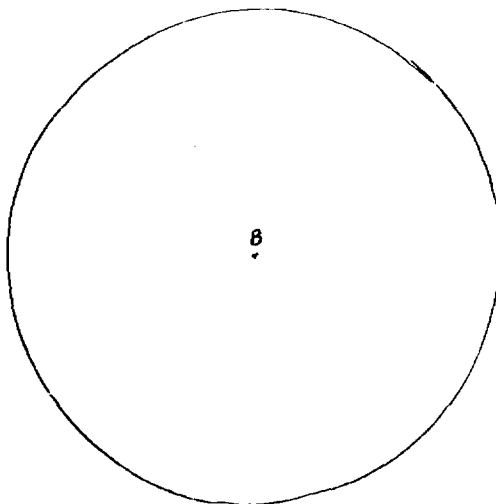
Name _____

GEOMETRY

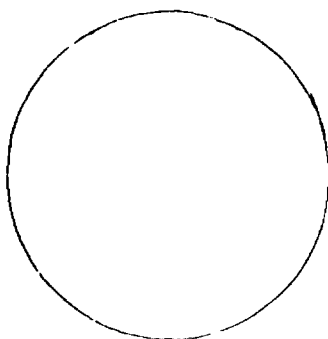
Date _____

Skill 5 (Page 1 of 2 pages)

1. Use your compass to draw a circle with a $1\frac{1}{2}$ inch radius that has point B as its center. You may need to use your ruler to get the right measurement on your compass.



2. Use your compass to draw a circle with a diameter of 2 inches.



LEVIN, E

Name _____

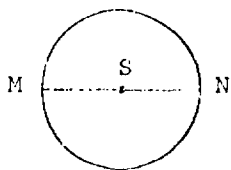
GEOMETRY

Date _____

Skill 5 (Page 2 of 2 pages)

Measure each radius and diameter in inches.

3.

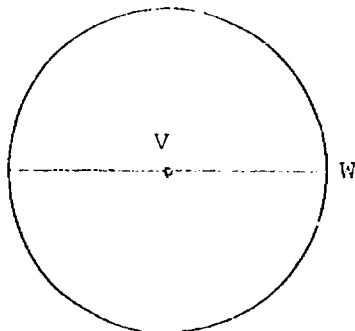


$$m(\overline{MS}) = \underline{\frac{1}{2}''}$$

$$m(\overline{SN}) = \underline{\frac{1}{2}''}$$

$$m(\overline{MN}) = \underline{1''}$$

4. X



$$m(\overline{XV}) = \underline{1''}$$

$$m(\overline{VW}) = \underline{1''}$$

$$m(\overline{XW}) = \underline{2''}$$

5. The length of a diameter of a circle is two times the length of a radius of a circle.

LEVEL E

Name _____

GEOMETRY

Date _____

Skill 6

Give the missing numbers.

1. 2 pounds = 32 ounces.

3. 5,280 ft. = 1 mile

2. 1 ton = 2,000 pounds

4. 6,000 lb. = 3 tons

5. If a turkey weighs 24 pounds and 7 ounces, how many ounces does it weigh?

5. 391 ounces

6. If a cat weighs 1 ton and 1287 pounds, how many pounds does it weigh?

6. 3,287 pounds

7. 2 tons 900 pounds
+1 ton 1300 pounds

4 tons 200 pounds

8. 1 mile 756 feet
+3 miles 4524 feet

5 miles 0 feet

9. 4 pounds 10 ounces
-1 pound 14 ounces

2 pounds 12 ounces

10. 3 tons 456 pounds
-1 ton 983 pounds

1 ton 1473 pounds

LEVEL E

Name _____

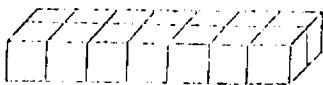
GEOMETRY

Date _____

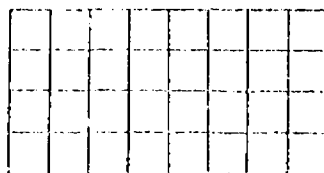
Skill 8, 9

Give the surface area of each figure. Use square units.

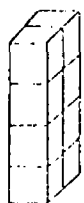
1.

1. 46 sq units

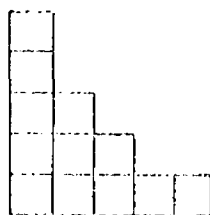
2.

2. 32 sq units

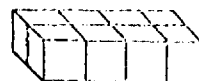
3.

3. 28 sq units

4.

4. 12 sq units

5.

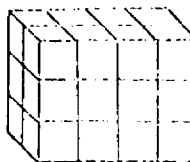
5. 28 sq units

Give the volume of each figure. Use cubic units.

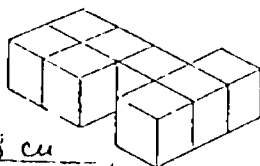
6.

6. 14 cu units

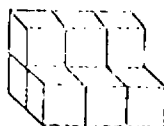
7.

7. 24 cu units

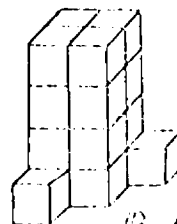
8.

8. 8 cu units

9.

9. 9 cu units

10.

10. 18 cu units

LEVEL E

Name _____

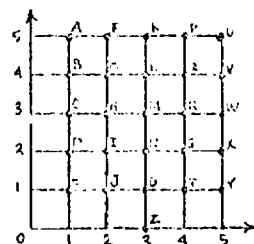
GEOMETRY

Date _____

Skill 10

Use the number plane to write each of the words as a set of number pairs.

1. TURTLE (4,1), (5,5), (4,3), (4,1), (3,4), (1,1)
2. GROVE (2,4), (4,3), (3,1), (5,4), (1,1)
3. MONKEY (3,3), (3,1), (3,2), (3,5), (1,1), (5,1)
4. SURF (4,2), (5,5), (4,3), (2,5)
5. GARGLE (2,4), (1,5), (4,3), (2,4), (3,4), (1,1)



Use the number plane to name the words.

1. (4,5), (3,4), (1,5), (5,1) play
2. (3,1), (1,3), (1,1), (1,5), (3,2) ocean
3. (2,3), (1,5), (4,5), (1,5), (5,1) happy
4. (1,3), (3,1), (4,4), (5,5), (2,2), (3,2), (1,5) Coquina
5. (1,3), (2,3), (4,3), (2,2), (4,2), (4,1), (3,3), (1,5), (4,2) Christmas

LEVEL E

Name _____

GEOMETRY

Date _____

Skill 11 (Page 2 of 2 pages)

4. Make a pictograph showing the following information:

Monday 1

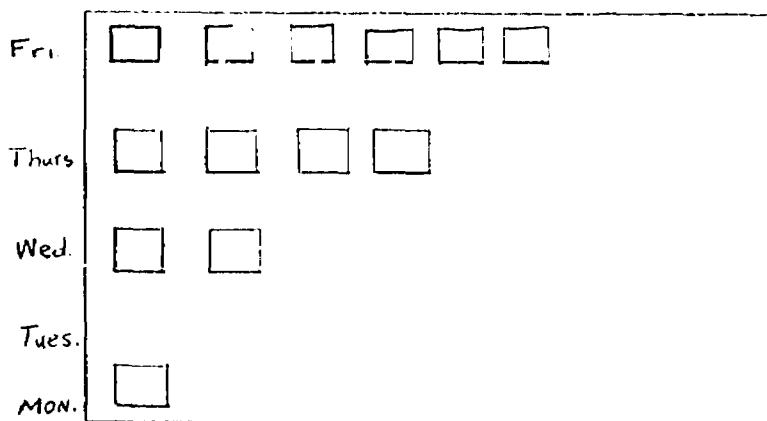
Tuesday 0

Wednesday 2

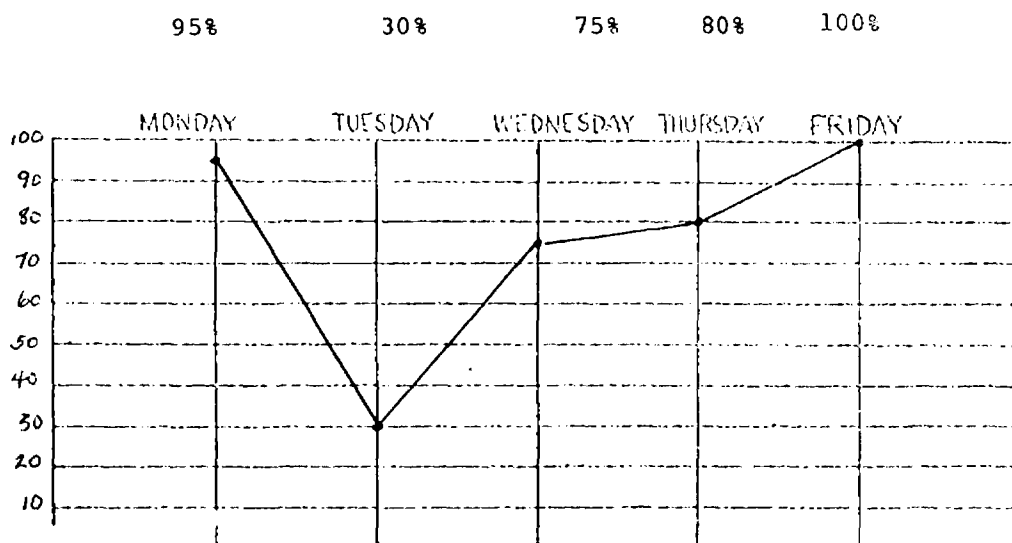
Thursday 4

Friday 6

Number of Televisions Sold in
One Week



5. Make a line graph illustrating Jack's spelling test scores.



LEVEL E

Name _____

TIME

Date _____

Skill 1, 2 (Page 1 of 2 pages)

Choose the correct answer.

1. Many schools start at 8:00 A.M..

a. A.M.

b. P.M.

2. We celebrate New Year's Eve on December 31st.

The New Year starts at midnight.

a. noon

b. midnight

3. Sam's plane from New York left at 2:30 A.M.

Did he go to the airport in the middle of the afternoon
or in the middle of the night?

middle of
the night

4. Some Saturday afternoon movies start at 2:00 o'clock.

a. A.M.

b. P.M.

P.M.

5. We use A.M. after midnight and before noon.

LEVEL E

Name _____

TIME

Date _____

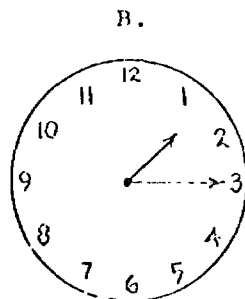
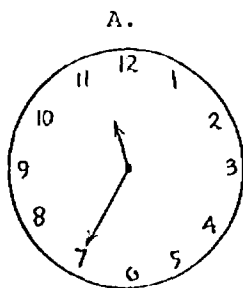
Skill 1, 2 (Page 2 of 2 pages)

Solve these problems.

6. The tardy bell rings at 7:50 and class begins at 8:00. How many minutes have gone by?

10 minutes

7. How many minutes have passed between the time shown on clock A and clock B?



8. The first class begins at 8:10 and ends at 8:50. How many minutes does the class last?

40 minutes

9. Jack won the race. The race began at 2:30. His time was one minute. What time did he cross the finish line?

2:31

10. Ann began reading at 10:45 A.M. She read until 11:30 A.M. How many minutes did she read?

45 minutes

LEVEL E

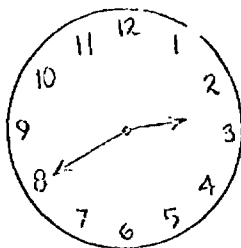
Name _____

TIME

Date _____

Skill 3 (Page 1 of 4 pages)

Use the pictured clock to answer questions 1, 2, and 3.



1. a. 1 hour and 30 minutes later than the time shown 4:10
b. 2 hours and 30 minutes earlier than the time shown 12:10
c. 3 hours and 30 minutes later than the time shown 6:10

2. What time will it be $2\frac{1}{2}$ hours from the time shown on this clock?

2. 5:10

3. What was the time $1\frac{1}{2}$ hours earlier than the time shown on this clock face?

3. 1:10

4. Bob left home at 8:30 A.M. He returned in 1 hour and 30 minutes. What time was it when he got home?

4. 10:00 A.M.

5. Lunch period begins at 11:30. Each section of the fourth year class will go to lunch at 3 minute intervals. What time will it be when the 6th section goes to lunch?

5. 11:45

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 2 of 4 pages)

6. Plane

| | Leaves | Arrives | Leaves | Arrives |
|----|------------|--------------|--------------|-----------|
| | Cleveland | Jacksonville | Jacksonville | Nashville |
| A. | 9:00 A.M. | 11:30 A.M. | 12:30 A.M. | 2:30 P.M. |
| B. | 11:10 A.M. | 1:20 P.M. | 2:00 P.M. | 5:05 P.M. |

1. Plane A arrives in Jacksonville at: 11:30 A.M.
2. Plane B leaves Jacksonville at: 2:00 P.M.
3. Plane B arrives in Nashville at: 5:05 P.M.
4. Plane A leaves Cleveland at: 9:00 A.M.

7. Plane

| | Leaves | Arrives | Leaves | Arrives |
|-----|-----------|-----------|------------|------------|
| | Chicago | St. Louis | St. Louis | Dallas |
| #69 | 9:05 A.M. | 9:55 A.M. | 10:15 A.M. | 11:35 A.M. |
| #16 | 1:15 P.M. | 1:57 P.M. | 2:18 P.M. | 3:03 P.M. |

1. Plane #69 arrives in St. Louis, in the morning, at: 9:55 A.M.
2. Plane #16 leaves St. Louis, in the afternoon, at: 2:18 P.M.
3. How many minutes does #69 plane stay in St. Louis? 20 minutes

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 3 of 4 pages)

Bus

8.

| | Leaves | Arrives | Leaves | Arrives |
|----|-----------|-----------|-----------|--------------|
| | Melbourne | Daytona | Daytona | Jacksonville |
| A. | 3:30 A.M. | 5:00 A.M. | 5:15 A.M. | 7:15 A.M. |
| B. | 5:15 P.M. | 6:45 P.M. | 7:00 P.M. | 8:45 P.M. |

1. Bus A. arrives in Jacksonville at: 7:15 A.M.
2. Bus B. leaves Daytona at: 7:00 P.M.
3. Which bus arrives in Jacksonville for breakfast? A

Plane

9.

| | Leaves | Arrives | Leaves | Arrives |
|----|-----------|-----------|-----------|------------|
| | Melbourne | Tampa | Tampa | Houston |
| A. | 1:45 A.M. | 2:45 A.M. | 3:15 A.M. | 5:30 A.M. |
| B. | 8:15 P.M. | 9:15 P.M. | 9:45 P.M. | 11:55 P.M. |

1. Plane A. arrives in Tampa at: 2:45 A.M.
2. Plane B. arrives in Houston at: 11:55 P.M.
3. Plane A. leaves Tampa at: 3:15 A.M.

LEVEL E

Name _____

TIME

Date _____

Skill 3 (Page 4 of 4 pages)

10. Plane

| | Leaves | Arrives | Leaves | Arrives |
|------|-----------|-----------|------------|------------|
| | St. Louis | Chicago | Chicago | Cleveland |
| #69 | 9:00 A.M. | 9:57 A.M. | 10:18 A.M. | 11:00 A.M. |
| #143 | 1:12 P.M. | 2:02 P.M. | 2:31 P.M. | 3:14 P.M. |

1. If you fly from Chicago to Cleveland, leaving before noon, what time will you leave?

10:18 A.M.

LEVEL E

Name _____

TIME

Date _____

Skill 4

(Teacher Note: See problem 5.)

1. In fifteen seconds it will be exactly 9:00. The second hand is now on:

- (a) 3
- (b) 6
- (c) 9
- (d) 4

2. If a clock runs for 2 minutes and 30 seconds, the second hand goes around:

- (a) $1\frac{1}{2}$ times
- (b) $2\frac{1}{2}$ times
- (c) $3\frac{1}{2}$ times
- (d) 1 time

3. Jane said, "I will be there in half a minute."
How many seconds would this be?

3. 30 seconds

4. How many seconds in a minute?
How many minutes in an hour?

4. 60 seconds
60 minutes

5. Using a clock, have students identify time:

_____ hour, _____ minute, _____ second

LEVEL E

Name _____

TIME _____

Date _____

Skill 5

1. Complete this calendar for December 1970.

| 1970 | | D E C E M B E R | | | | | 1970 |
|------|------|-----------------|------|-------|------|------|------|
| SUN. | MON. | TUES. | WED. | THUR. | FRI. | SAT. | |
| | | 1 | 2 | 3 | 4 | 5 | |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| 27 | 28 | 29 | 30 | 31 | | | |

2. From the calendar:

What date is the 2nd Friday in December? 11

3. Write December twenty-first, nineteen seventy, using numerals.

12-21-70 or 12/21/70

4. How many days are in the month of December? 31

5. Paul knows that if November 5 is on a Saturday he can find what day November 15 is by:

adding
What day is it? Tuesday

LEVEL E

Name _____

TIME

Date _____

Skill 6

1. Joan washed her hair on Saturday. It took 15 minutes to shampoo, $\frac{1}{2}$ hour to put it on curlers, 40 minutes to dry, and 30 minutes to comb. She spent 1 hours, 55 minutes doing her hair.

2. It took Jack 9 weeks to learn his multiplication facts. It took Jill 17 days to learn hers. How many days longer did it take Jack to learn his?

46 days

3. 30 days in a month and 12 months in a year.

| | | |
|----------|---------|---------|
| 6 yrs. | 4 mos. | 20 days |
| - 3 yrs. | 5 mos. | 22 days |
| 2 yrs. | 10 mos. | 28 days |

4. 30 days in a month and 12 months in a year.

| | | |
|-------|----------|---------|
| | 3 mos. | 17 days |
| | + 9 mos. | 20 days |
| 1 yr. | 1 mos. | 7 days |

5. 60 seconds in a minute and 60 minutes in an hour.

| | | | |
|---|---------|----------|----------|
| | 7 hours | 40 mins. | 22 secs. |
| + | | 30 mins. | 44 secs. |
| | 8 hours | 11 mins. | 6 secs. |

LEVEL E

Name _____

MONEY

Date _____

Skill 1 (Page 2 of 2 pages)

6. Circle the names of the coins which you would receive as change if you bought a baseball glove for \$6.89 and gave the clerk \$7.00.

dime

nickel

quarter

penny

7. Circle the names of the coins which you would receive as change if you bought a model car for \$1.49 and gave the clerk \$2.00.

penny

dime

half-dollar

nickel

8. Circle the name of the coins which you would receive as change if you bought a pair of shoes for \$6.59 and you gave the clerk \$6.75.

nickel

penny

dime

quarter

9. Circle the name of the coins which you would receive as change if you bought a toy for 74¢ and gave the clerk \$1.00.

penny

nickel

quarter

dime

10. Circle the names of the money which you would receive as change if you bought a football for \$3.64 and gave the clerk \$5.00.

dime

penny

half-dollar

quarter

one dollar

LEVEL E

MONEY

Skill 2

Name _____

Date _____

Solve.

$$\begin{array}{r} 1. \quad 32¢ \\ + 48¢ \\ \hline 80¢ \end{array}$$

$$\begin{array}{r} 2. \quad \$5.70 \\ - 5.45 \\ \hline \$.25 \end{array}$$

$$\begin{array}{r} 3. \quad \$.96 \\ - .09 \\ \hline \$.87 \end{array}$$

$$4. \quad \$7.50 + \$.35 = \$7.85$$

$$\begin{array}{r} 5. \quad \$ 1.87 \\ .37 \\ + 26.08 \\ \hline \$ 28.12 \end{array}$$

$$\begin{array}{r} 6. \quad \$9.06 \\ + 2.48 \\ \hline \$11.54 \end{array}$$

$$\begin{array}{r} 7. \quad \$21.94 \\ 1.09 \\ 7.17 \\ .25 \\ \hline \$30.45 \end{array}$$

$$\begin{array}{r} 8. \quad \$1.45 \\ 2.35 \\ .39 \\ .19 \\ .22 \\ .17 \\ \hline \$4.77 \end{array}$$

$$9. \quad \$25.38 - \$14.56 = \$10.82$$

$$10. \quad \$3.97 - \$1.26 = \$2.71$$

LEVEL E

Name _____

MONEY

Date _____

Skill 4 (Page 1 of 2 pages)

Solve. Label.

1. Carol bought a book for 59¢, a stuffed toy animal for \$1.98, and a whistle for 39¢. How much change would Carol receive if she gave the clerk \$10?

1. \$.04

2. Scott bought a paint set for \$1.25, a toy truck for 89¢, and a gift for his mother for \$1.75. How much change would Scott receive if he gave the clerk \$5?

2. \$ 1.11

3. Lynn bought a blouse for \$3.98 and a skirt for \$5.25. What change would Lynn receive if she gave the clerk \$10?

3. \$.77

4. Don bought a hot dog for 30¢, some French fries for 25¢, a large coke for 25¢ and two nickel candy bars. How much change would Don receive if he gave the clerk \$5?

4. \$ 4.10

5. Chris bought a stamp collection for \$2.75, a book to put them in for 89¢ and a guide for collecting other stamps for \$1.25. How much change would Chris receive if he gave the clerk \$5?

5. \$.11

LEVEL E

Name _____

MONEY

Date _____

Skill 4 (Page 2 of 2 pages)

6. Tom bought a ball glove for \$4.95 and a baseball for \$3.00. How much change would he receive if he gave the clerk \$10?

6. \$ 2.05

7. Willy bought a hot dog for 30¢, a drink for 15¢, a bar of candy for 10¢ and a bag of potato chips for 25¢. How much change would he receive if he gives the salesman \$1?

7. \$.20

8. Susie saved her allowance for five weeks. She gets \$2.00 a week allowance. If she buys a dress for \$6.98, how much money will she have left?

8. \$ 3.02

9. Billy mowed 8 lawns at \$1.25 each. He bought a badminton set for \$6.95. What amount does he have left?

9. \$ 3.05

10. The 4 boys in the club each paid \$2.00 dues. They bought a football game for \$5.49 with the money. What amount do they have left?

10. \$ 2.51

MATHEMATICS CONTINUUM

LEVEL F

BOOK 5

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

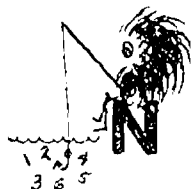
Metric and Non-Metric Geometry have been combined under the heading Geometry.

Money has been keyed to Decimals.

The conversion tables are listed in the Strategy Manual.

LEVEL F

NUMERATION



Review of Level E Skills

1. Rounds numbers to nearest thousands, ten thousands and millions. Rule: rounds up from 5.
2. Writes and reads the compact numeral for an 8, 9 or 10 place number written in words and writes an 8, 9 or 10 place number in words.
3. Identifies the place value of any digit up to billions' place. Teacher note: Occasionally scramble the order.
4. Uses the exponent to tell how many times the base is used as a factor. When given the product, can identify how many times the base was multiplied by itself. Identifies the base and the exponent or power of a term.
5. Writes a compact numeral using exponential notation and vice versa. Only one non-zero digit.

Example

Numeration

Add.

$$13,010 + 18,900 = \underline{31,910}$$

Now round each addend to the nearest ten thousand. Add these to estimate the sum. Compare the estimate with the exact sum.

$$\begin{array}{r} 10,000 \\ + 20,000 \\ \hline 30,000 \end{array}$$

Write the number words for this numeral.

4,138,135,675 = fourB,onehundredthirty-eightM,onehundredthirty-fiveT,sixhundredseventy-five

Underline the numeral in the hundred thousands place.

9,876,423,951

Write the product using a base and an exponent.

$$10 \times 10 \times 10 \times 10 = \underline{10^4}$$

Write the product.

$$10^4 = \underline{10,000}$$

Underline the base and circle the exponent.

$$\underline{10}^{(4)}$$

Write this number in expanded form using exponential form.

$$400 = \underline{4 \times 10^2}$$

Numeration

HM Book 5, pp. 1, 2
10-12, 17, 29

1.

2. HM Book 5, pp. 13, 16,
18, 21, 28, 29, 43

HM Masters 5 (4, 5)

3.

4.

5. HM Book 5, p. 21

HM Masters 5 (5)

LEVEL F

Numeration

6. Lists factors, sets of factors, common factors and greatest common factor.
7. Lists multiples of a given number; selects common multiples, least common multiple of two or more sets of multiples.
8. Identifies prime numbers to 100 as a number greater than one with exactly two different factors, itself and one. Expresses composite numbers as the product of prime numbers.
9. Identifies number sequences and states the rule for the sequence.
10. States and uses the divisibility rules to determine if a number is divisible by 2, 3, 4, 5, 6, 9, or 10.
11. Identifies sets such as empty sets, universal sets, supersets, infinite and finite sets as well as identifying the members of a given set.

Example

Numeration

The factors of 18 are:

{1, 2, 3, 6, 9, 18}

The factors of 6 are:

{1, 2, 3, 6}

What is the greatest common factor? 6

Write the multiples, less than 25 of:

2 {2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24}

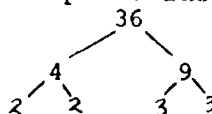
5 {5, 10, 15, 20}

What is the least common multiple? 10

Circle the prime numbers on this chart.

16 (5) 10 (3) 46 12

Find the prime factors of:



Complete the chart.

1, 0, 2, 0, 3, 0, 4, 0, 5,
0, 6, 0

Is 231 divisible by 3? yes

How can you determine this?

The sum of the digits is a multiple of three, so it is divisible by three.

Name a set that could be the universe of:

M = {horse, sheep, cat, dog}
{animals}

Numeration

| | |
|--|---|
| 6. HM Book 5, pp. 164-167 | HM Visuals 5 (12) HM Masters 5 (42) |
| 7. HM Book 5, pp. 168-171 | HM Visuals 5 (13) HM Masters 5 (43) |
| 8. HM Book5, pp. 172-178 | HM Visuals 5 (14) HM Masters 5 (44, 45) |
| 9. HM Book 5, pp. 38, 39, 44, 81, 104, 138-141, 180, 181 | HM Visuals 5 (3, 10, 15) HM Masters 5 (10, 40) |
| 10. HM Book 5, pp. 182-185 | |
| 11. HM Book 5, pp. 3-5, 9 | HM Masters 5 (1, 3) |

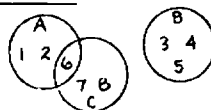
LEVEL F

Numeration

12. Interprets relationship between sets or subsets as being disjoint, intersecting, equal, equivalent, etc.
13. In-Depth.

Example

Numeration



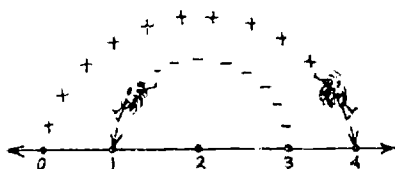
Answer True or False.

Set B is disjoint from set C. T

Set C is equal to set B. F

Set C is equivalent to set B. T

ADDITION AND SUBTRACTION



Review of Level E Skills

1. Adds or subtracts with renaming or regrouping for four or more digits.
2. Solves word problems requiring addition or subtraction skills mastered to this point.
- Teacher note: Use the five-step method, student's page 45.

Addition and Subtraction

Add or subtract.

$$\begin{array}{r} 7,865 \\ + 5,947 \\ \hline 22,245 \end{array} \quad \begin{array}{r} 5,864 \\ - 2,959 \\ \hline 2,905 \end{array}$$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--------------------------------------|--------------|
| <u>Numeration</u> | | |
| 12. HM Book 5, pp. 6, 8, 9 | HM Visuals 5 (1) HM Masters 5 (3) | |
| 13. HM Book 5, pp. 22-24, 30, 31, 63, 187-191, 193 | | |

Addition and Subtraction

| | | |
|---|--|--|
| HM Book 5, pp. 32-37, 40-42, 44, 47-49, 52, 53, 316 | HM Visuals 5 (4) HM Masters 5 (7-9, 11-13, 15) | |
| 1. HM Book 5, pp. 50, 54, 60, 317-319 | HM Visuals 5 (4) HM Masters 5 (14, 16, 17) | |
| 2. HM Book 5, pp. 45, 46, 51 | | |

LEVEL F

MULTIPLICATION AND DIVISION



Review of Level E Skills

1. Uses the commutative and associative properties to simplify multiplication; the distributive property to simplify multiplication and division for one and two digit numbers.
2. Uses the multiplication algorithm for a two digit number times a two or more digit number.
3. Demonstrates mastery of multiplication and division facts of the 11's and 12's tables through 12×12 .
4. Divides a three or more digit dividend by a one digit divisor. Writes remainders as fractions as well as whole number remainders.
5. Estimates the quotient by rounding the divisor and/or dividend.
6. Divides a two or more digit dividend by a two digit divisor.

Example

Multiplication and Division

Fill in each .

$$\begin{aligned}(12 \times 8) \times 5 &= \boxed{12} \times (8 \times 5) \\ &= \boxed{12} \times \boxed{40} \\ &= \boxed{480}\end{aligned}$$

$$\begin{aligned}(36 \div 4) + (24 \div 4) &= (36 + 24) \div \boxed{4} \\ &= \boxed{60} \div 4 \\ &= \boxed{15}\end{aligned}$$

Find the products.

$$\begin{array}{r} 27 \\ \times 35 \\ \hline 945 \end{array} \qquad \begin{array}{r} 146 \\ \times 23 \\ \hline 3358 \end{array}$$

Find the products or quotient.

$$\begin{array}{r} 11 \\ \times 8 \\ \hline 88 \end{array} \quad \begin{array}{r} 12 \\ \times 6 \\ \hline 72 \end{array} \quad \begin{array}{r} 12 \\ \times 12 \\ \hline 144 \end{array} \quad \begin{array}{r} 11 \\ \times 12 \\ \hline 132 \end{array}$$

$108 \div 12 = 9$ $121 \div 11 = 11$

Divide. Write the remainder using an R.

$$\begin{array}{r} 64 \text{ R } 5 \\ 6 \overline{) 389} \end{array}$$

Divide. Write the remainder as a fraction.

$$\begin{array}{r} 10 \frac{1}{8} \\ 8 \overline{) 83} \end{array}$$

Round the divisor and dividend, then estimate the quotient.

$$\begin{array}{r} 10 \\ 48 \overline{) 1920} \end{array} \qquad \begin{array}{r} 10 \\ 50 \overline{) 2000} \end{array}$$

Divide.

$$\begin{array}{r} 40 \frac{1}{16} \\ 48 \overline{) 1921} \end{array}$$

Textual ResourcesMultiplication and Division

HM Book 5, pp. 98, 99
103, 105, 106, 118-120
123

1. HM Book 5, pp. 14, 15,
102, 320, 322

2. HM Book 5, pp. 108-111,
113, 321

3.

4. HM Book 5, pp. 121-124,
323

5. HM Book 5, pp. 128, 129

6. HM Book 5, pp. 126, 127,
324

Related Resources

HM Visuals 5 (9)
HM Masters 5 (27-30,
35)

HM Visuals 5 (2)

HM Masters 5 (31, 32)

HM Visuals 5 (9)
HM Masters 5 (36)

HM Masters 5 (38)

HM Visuals 5 (9)
HM Masters 5 (37)

Notes

LEVEL F

Multiplication and Division

7. Uses fractional notation, vertical form and standard algorithm for writing and solving a division problem.
8. Uses the symbol \otimes to indicate cross products and pair sets.
9. Finds average, range and median numbers from given data.
10. Writes a number from 1 through 9, multiplied by itself a number of times, in exponential form.
11. Solves one or two-step word problems requiring multiplication or division skills mastered to this point.
Teacher note: Use the five-step method, student's page 45.
12. Mixed Practice.
13. In-Depth.

Example

Multiplication and Division

Write this problem in two other division forms.

$$\begin{array}{r} 35 \\ 5 \overline{) 35} \end{array} \quad 35 \div 5 = 7 \quad 5 \overline{) 35} \begin{array}{l} 7 \\ \hline \end{array}$$

Set A {chocolate, vanilla}

Set B {cherry, pineapple, banana}

Set A \otimes B {chocolate-cherry
chocolate-pineapple
chocolate-banana
vanilla-cherry
vanilla-pineapple
vanilla-banana}

Name the range, average and median numbers in this set.

{29, 81, 62, 84, 97, 67,
28, 17, 61}

80 range, 58 average, 62 median

Write this product using exponents.

$$3 \times 3 \times 3 \times 3 = \underline{3^4}$$

There are 450 sacks of potatoes on a truck. If each sack weighs 25 pounds, how many pounds are there on the truck?

11,250 lbs.

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--|--------------|
| <u>Multiplication and Division</u> | | |
| 7. | | |
| 8. HM Book 5, pp. 100, 101, 134-138 | HM Visuals 5 (10) HM Masters 5 (26, 39) | |
| 9. HM Book 5, pp. 156-159, 284, 285 | HM Masters 5 (41) | |
| 10. HM Book 5, p. 20 | | |
| 11. HM Book 5, pp. 113, 325 | | |
| 12. HM Book 5, pp. 80, 116, 131, 132, 162, 205, 314 | HM Masters 5 (46, 80) | |
| 13. HM Book 5, pp. 63, 133, 163, 179 | HM Visuals 5 (10) | |

LEVEL F

FRACTIONS



Review of Level F Skills

1. Renames fractions without the aid of pictures.
2. Writes equivalent fractions, improper to mixed number form and conversely. Gives the simplest name for any fraction of a/b form.
3. Finds and uses the lowest common denominator for working addition and subtraction problems without pictures. Uses the commutative, associative and inverse properties in checking problems.
4. Adds and subtracts combinations of fractions. Expresses answers in lowest terms.
5. Fills in the missing relation or operation symbol to make a fractional number sentence true.
6. Rearranges groups of fractions into an ordered set from largest to smallest or smallest to largest.

Example

Fractions

Rename this fraction.

$$\frac{2}{3} \times \frac{2}{2} = \frac{a}{6} \quad a=4$$

Reduce to lowest terms.

$$\frac{6}{5} = 1\frac{1}{5}$$

Find the value for the letters.

$$\frac{1}{2} + \frac{1}{4} = \frac{a}{4} + \frac{1}{4} = \frac{b}{4}$$

$a = 2 \qquad b = 3$

Add. Always reduce to lowest terms.

$$\begin{array}{r} 7 \frac{1}{8} \\ + 8 \frac{1}{4} \\ \hline 15 \frac{3}{8} \end{array}$$

Put $>$, $<$ or $=$ in each $()$.

$$\begin{array}{l} 4/5 \quad \textcircled{<} \quad 9/10 \\ 9/7 \quad \textcircled{>} \quad 1 \frac{1}{7} \end{array}$$

Put these fractions in order from smallest to largest.

$$7/4, 2 \frac{1}{8}, 4/5, 9/10$$

$$9/10, 1/5, 1/4, 2\frac{1}{8}$$

Textual ResourcesRelated ResourcesNotesFractions

- | | | |
|---|---|--|
| HM Book 5, pp. 194-200, 208, 209, 228, 290 | HM Masters 5 (47, 48) | |
| 1. HM Book 5, pp. 210-213 | HM Visuals 5 (16) HM Masters 5 (52, 53) | |
| 2. HM Book 5, pp. 214-217, 232, 234 | HM Visuals 5 (17-19) HM Masters 5 (54, 57) | |
| 3. HM Book 5, pp. 230, 233, 235-239 | HM Visuals 5 (20) HM Masters 5 (57-61) | |
| 4. HM Book 5, pp. 229, 242-244, 246, 247, 275 | HM Masters 5 (62, 63) | |
| 5. HM Book 5, p. 249 | | |
| 6. | | |

LEVEL F

Fractions

7. Multiplies or divides a whole number by a fraction or vice versa, with or without the use of pictures.
8. Multiplies a fraction by a fraction using pictures.
9. Solves word problems using skills learned to this point.
Teacher note: Use the five-step method, student's page 45.
10. In-Depth.

Example

Fractions

Multiply.
 $1 \times \frac{2}{3} = \frac{2}{3}$
Find the value of a.



$$\frac{4}{5} \div a = \frac{2}{5} \quad a = 2$$

Multiply using pictures for answers.



$$\frac{1}{3} \times \frac{3}{4} = \frac{1}{4}$$

Solve.
John had $1 \frac{1}{2}$ pies. He divided them equally among 6 friends. How much pie did each person get?
 $\frac{1}{4}$ pie

DECIMALS

1. Identifies the decimal point and recognizes that the decimal point is placed between the ones and the tenths position.
2. Reads and writes decimals using the word "and" to locate the decimal point.

Decimals

one and three tenths = 1.3

Write this number in words.
39.78 thirty-nine and seventy-eight hundredths

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--|--------------|
| <u>Fractions</u> | | |
| 7. HM Book 5, pp. 201, 206, 207, 290-293, 308, 309, 315, 326, 329 | HM Masters 5 (49, 51, 71, 72, 77) | |
| 8. HM Book 5, pp. 202, 203, 302, 303 | HM Masters 5 (75) | |
| 9. HM Book 5, pp. 142, 204, 231 | HM Masters 5 (50) | |
| 10. HM Book 5, pp. 218-222, 224, 225, 227, 240, 248, 250, 251, 256, 257, 259, 288, 294-299, 304-307, 310, 312, 312, 327-328, 340 | HM Visuals 5 (24) HM Masters 5 (55, 56, 64, 65, 73, 74, 76, 78) | |

Decimals

- | | | |
|---------------------------------|--|--|
| 1. HM Book 5, pp. 330, 332, 333 | | |
| 2. | | |

LEVEL F

Decimals

3. Renames common fractions with denominators of ten or a hundred in decimal form, and conversely.
4. Orders a collection of decimals to the hundredths position.
5. Adds and subtracts two decimal numbers to the hundredths position.
6. Multiplies decimal fractions by whole numbers and conversely.
7. Solves word problems using decimals.
Teacher note: Use the five-step method, student's page 45.
8. Uses the four operations to solve word problems involving money.
9. Mixed Practice.
10. In-Depth.

Example

Decimals

Rename these fractions as decimals.

$$\frac{8}{10} = .8$$

$$\frac{4}{100} = .04$$

Put these decimals in order from smallest to largest.

.06, 6.6, .6, 6.06, 6.0

.06, .6, 6.0, 6.06, 6.6

Add or subtract.

$$\begin{array}{r} .2 \\ + .5 \\ \hline .7 \end{array} \qquad \begin{array}{r} 3.92 \\ - 1.84 \\ \hline 2.08 \end{array}$$

Multiply.

$$\begin{array}{r} 9 \\ \times .5 \\ \hline 4.5 \end{array} \qquad \begin{array}{r} .06 \\ \times 11 \\ \hline .66 \end{array}$$

The Daytona Speedway track record was 146.2 m.p.h. The Firecracker 400 was run at 152.8 m.p.h. How much greater was the new record?
6.6 m.p.h.

How many 79¢ notebooks can be bought for \$4.05? How much change would be left?

5 notebooks
10¢ change

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|---------------------------------------|--------------|
| <u>Decimals</u> | | |
| 3. HM Book 5, pp. 330-333 | | |
| 4. | | |
| 5. HM Book 5, pp. 56, 331, 334 | HM Masters 5 (79) | |
| 6. HM Book 5, p. 336 | | |
| 7. HM Book 5, p. 337 | | |
| 8. HM Book 5, pp. 57, 107, 112, 125, 127, 142, 143 | HM Visuals 5 (9) HM Masters 5 (33) | |
| 9. HM Book 5, p. 339 | | |
| 10. HM Book 5, pp. 335, 338, 340, 341 | | |

LEVEL F

GEOMETRY



Review of Level E Skills

Ray, Angle, Vertex, Bisect

Everyday measures

1. Measures perimeters of various polygons.
2. Measures and constructs angles with the use of a protractor. Utilizes information to determine congruency of angles.
- *3. Measures and constructs polygons, right triangles, parallelograms, rectangles and squares with the use of a protractor and ruler.
- *4. Identifies or constructs models of simple closed surfaces such as rectangular prism, triangular prism, tetrahedron, rectangular pyramid, and pentagonal pyramid.
5. Identifies, constructs or locates the following elements related to a circle: center, diameter, radius, chord, arc, semicircle.

Example

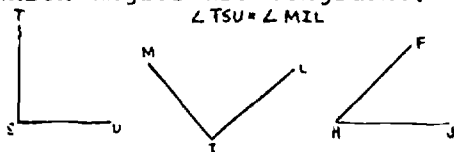
Geometry

Measure the side, then name the perimeter.



Which angles are congruent.

$$\angle TSU = \angle MIL$$



Construct a polygon with all its sides congruent.



The following drawing shows a tetrahedron.



A line segment joining two points on a circle is called a chord.

Textual ResourcesGeometry

HM Book 5, pp. 66-68,
76, 84-47

HM Book 5, pp. 64, 65

HM Book 5, pp. 19, 58,
59

1. HM Book 5, p. 69

2. HM Book 5, pp. 70-73

3. HM Book 5, pp. 74, 75

4. HM Book 5, pp. 82,
83

5. HM Book 5, pp. 262,
263

Related Resources

HM Visuals 5 (6)
HM Masters 5 (19, 23
24)

HM Visuals 5 (5)
HM Masters 5 (18)

HM Masters 5 (20)

HM Masters 5 (21)

HM Masters 5 (22)

HM Visuals 5 (7)

Notes

LEVEL F

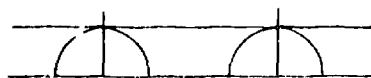
Geometry

6. Constructs parallel and perpendicular line segments using a compass. Uses these to construct parallelograms, rectangles and squares.
7. Identifies or constructs triangles using concepts of congruency and/or similarity.
8. Gives the ordered pair for a point in a number plane or conversely. Locates a point in the plane using a given ordered pair.
9. Uses the concept of numbered planes to read and construct bar bar and line graphs.
10. Solves word problems using the skills learned to this point.
Teacher note: Use the five-step method, student's page 45.
11. Performs conversions between two metric measures of length, weight or capacity. Student is to be supplied with conversion tables.

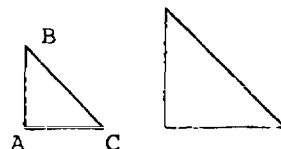
Example

Geometry

Draw two parallel line segments using a compass and ruler.

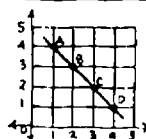


Construct a triangle similar to $\triangle ABC$.

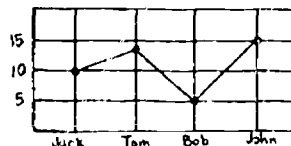


In the number plane use pairs of whole numbers to name:

A = 1, 4, B = 2, 3



Which boy read the most books?



John

The square in the town where Farmer Brown shops is 60 yards on one side. If you walk around the square how many yards would you walk?

240 yards

Name the number of meters in:

35 kilometers = 35,000 m

3 kilometers, 423 meters = 3423 m

Textual ResourcesGeometry

6. HM Book 5, pp. 264,
265
7. HM Book 5, pp. 266,
267, 276-279
8. HM Book 5, pp. 88-91,
280, 281
9. HM Book 5, pp. 91-93
10. HM Book 5, p. 78
11. HM Book 5, p. 27

Related Resources

- HM Visuals 5 (21)
- HM Masters 5 (67)
- HM Visuals 5 (8)
- HM Masters 5 (25)

Notes

LEVEL F

Geometry

12. Performs conversions between metric and English system of measurement. Student is to be supplied with conversion tables.
13. Mixed Practice.
14. In-Depth.

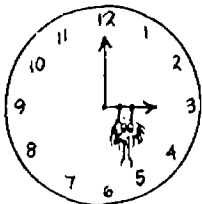
Example

Geometry

Name the approximate number of quarts in:

2 liters = about 2 quarts
27 liters = about 27 quarts

TIME



1. Adds and subtracts units of time for problem situations which extend beyond 12:00; e.g., "three hours later than 11:00 p.m. is 2:00 a.m."
2. Writes equivalent values for the following: decade, fortnight, score and century. States number of days in a leap year.
3. Converts time between 24 hour and 12 hour clocks.
4. Solves problems which require time zone changes between the four major time zones in the U.S.

Time

Write the time in the blank.
6 hours and 30 minutes later than 9:00 p.m. is 3:30 A.M.

How many years are there in 2 1/2 decades? 25 years

A 24-hour clock reads 16:30. What time is this on a 12 hour clock? 4:30 PM.

A plane leaves Chicago (CS) at 3:00 p.m. It arrives in San Francisco 3 1/2 hours later. What time is it in San Francisco (PST) when the plane arrives? 4:30 PM.

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|---|--------------|
| <u>Geometry</u> | | |
| 12. HM Book 5, p. 26 | | |
| 13. HM Book 5, pp. 79, 94, 95, 192, 226, 241, 258, 300 | HM Masters 5 (46) | |
| 14. HM Book 5, pp. 77, 97, 114, 115, 260, 261, 268-274, 282, 283, 286, 287, 289 | HM Visuals 5 (22, 23) HM Masters 5 (34, 66, 68-70) | |
| <hr/> | | |
| <u>Time</u> | | |
| 1. HM Book 5, p. 186 | | |
| 2. | | |
| 3. | | |
| 4. | | |

LEVEL F

Time

5. Solves problems which involve a change between daylight savings and standard times. States the reason daylight savings time is used.

Example

Time

A plane leaving Fairbanks, Alaska, at 1 a.m. arrives in Seattle at 6 a.m. In the summer, when Seattle is on daylight savings time and Fairbanks is not, what time is it when the plane arrives?
5:00 A.M.

SPECIAL TOPICS



1. Selects outcomes possible from a collection of objects.
2. Interprets set-subset statements using the terms "all", "some", "none", "any", "if-then" and "if not-then".
3. Uses Venn diagrams (set diagrams) to picture or interpret union and intersection of sets.

Special Topics

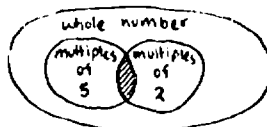
In a box containing 7 marbles; 3 of which are blue, what are your chances of picking a marble that is not blue?

$\frac{4}{7}$

If all squares are rectangles, can some squares be triangles?

No

If: $A = \{\text{set of whole numbers}\}$
 $B = \{\text{multiples of 5}\}$
 $C = \{\text{multiples of 2}\}$



Is the set of whole numbers a multiple of 5? No

Textual ResourcesRelated ResourcesNotesTime

5.

Special Topics

1. HM Book 5, pp. 252-255

2. HM Book 5, pp. 3, 146-155

3. HM Book 5, p. 7

HM Visuals 5 (11)

HM Visuals 5 (1)
HM Masters 5 (2)

LEVEL F

Special Topics

4. Mixed Practice.

Example

Special Topics

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|-------------------------------|--------------------------|--------------|
| <u>Special Topics</u> | | |
| 4. HM Book 5, pp. 160, 161 | | |

LEVEL F
TESTS
and
ANSWER KEYS



LEVEL F

Name _____

NUMERATION

Date _____

Skill 1

Round to the nearest 100.

1. 444 2. 1679 3. 1,111,111

Round to the nearest 1000.

4. 400 5. 5,555 6. 1,768,982

Round to the nearest 100,000.

7. 478,562 8. 987,654,320

9. 768,032,999 10. 85,743,279

LEVEL F

Name _____

NUMERATION

Date _____

Skill 9

Fill in the blanks.

1. 1,4,9,__,25,36,__,__,81,__,__

2. 1,2,2,3,3,3,__,__,4,__,5,__,__,__,__

3. 2,5,11,__,__,95,__

4. 17,13,18,14,__,__,20,__,__

5. 4,16,__,__,1024

LEVEL F

Name _____

NUMERATION

Date _____

Skill 2, 3

Write the number words for these numerals.

1. 34,135,675 1. _____

2. 89,406,525 2. _____

3. 246,987,503 3. _____

Write the compact numeral for these number words.

4. Five hundred thousand, five hundred fifty 4. _____

5. Thirty-three thousand, three hundred sixty-eight. 5. _____

Write the place value of the underlined digit.

6. 55,555,555 _____ 7. 123,456,789 _____

8. 101,010,101 _____ 9. 89,643,205 _____

10. 987,654,321 _____

LEVEL F

Name _____

NUMERATION

Date _____

Skill 4, 5

Write these products using a base and exponent.

1. $10 \times 10 \times 10 \times 10 =$ 1. _____

2. $10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 =$ 2. _____

Write the products.

3. $10^6 =$ 3. _____

4. $10^9 =$ 4. _____

5. $10^7 =$ 5. _____

In the following, underline the base and draw a circle around its exponent.

6. 10×10^6

7. 7×10^4

Write these numbers in expanded form using exponential notation.

8. $90 =$ 8. _____

9. $60,000 =$ 9. _____

10. $7,000,000 =$ 10. _____

LEVEL F

Name _____

NUMERATION

Date _____

Skill 6, 7

List the factors of each number and the greatest common factor for each pair of numbers.

1. 8 _____
12 _____

GCF _____

2. 70 _____
35 _____

GCF _____

3. 9 _____
24 _____

GCF _____

List the next five multiples for each number and the least common multiple for each pair of numbers.

4. 4 _____
5 _____

LCM _____

5. 12 _____
10 _____

LCM _____

LEVEL F

Name _____

NUMERATION

Date _____

Skill 8

Write the prime factors of the following numbers.

1. 37

1. _____

2. 9

2. _____

3. 79

3. _____

4. 85

4. _____

5. Which of the above numbers are prime? _____

LEVEL F

Name _____

NUMERATION

Date _____

Skill 10

Use the divisibility rule for 2,3,4,5,6,9, and 10 of the following numbers.

1. 60 _____

2. 135 _____

3. 4321 _____

4. 246,420 _____

5. What is the rule for testing a number for divisibility by 3?

LEVEL F

Name _____

NUMERATION

Date _____

Skill 11, 12

Name a set that could be the universe for:

1. $M = \{\text{apple, peach, pear, plum}\}$ _____

2. $B = \{\text{New Zealand, Australia, Puerto Rico}\}$ _____

set A = {all dog breeds}

set B = {all dog breeds in America}

set C = {beagle, shepherd, chihuahua}

set D = {beagle, basset hound, bird dog}

set E = {Siamese cats}

set F = {shepherd, beagle, chihuahua}

Use the above information to decide if the following relations are true or false.

3. set A is a subset of B _____

4. set B is a subset of A _____

5. set C is a subset of B _____

6. set C and D are equivalent sets _____

7. set C and F are equal sets _____

8. set E is a subset of A _____

9. set E is disjoint _____

10. set C and D intersect _____

LEVEL F

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1

Add.

$$\begin{array}{r} 1. \quad 17,865 \\ \quad 25,947 \\ \hline \quad 23,102 \end{array}$$

$$\begin{array}{r} 2. \quad 48,751 \\ \quad 1,934 \\ \hline \quad 27,254 \end{array}$$

Subtract.

$$\begin{array}{r} 3. \quad 25,209 \\ \quad 16,472 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 19,275 \\ \quad 10,986 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 15,000 \\ \quad 13,401 \\ \hline \end{array}$$

LEVEL F

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Solve and label your answers.

1. Mr. Green's speedometer registered 7492 miles when he started on a trip to Tallahassee and 8234 miles when he returned. How many miles did he travel?

2. Ron plays quarterback for the Panthers. During the season, he carried the ball for 176 yards in one game, 135 yards in another and 162 in the last game. What was the total yardage Ron carried the ball?

3. Mr. White raised 2092 bushels of apples in his orchard this year. Last year he raised 1737 bushels. How many more bushels did he raise this year than last year?

4. The Pacific Ocean has an average depth of 14,048 feet and the Atlantic Ocean has an average depth of 12,880. How much deeper is the average depth of the Pacific Ocean than the Atlantic?

5. If 25,426 children under twelve, 14,539 children over twelve and 21,987 adults visited Disneyland in one day, what was the total number of people there that day?

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1

By using the commutative, associative or distributive properties, simplify the following:

1. $18 \times 8 = (\underline{\quad} \times 8) + (8 \times 8)$
 2. $27 \times 40 = 27 \times (\underline{\quad} \times \underline{\quad}) = (27 \times 4) \times 10$
 3. Use associative **property** to simplify.
 $(3 \times 4) \times 5 = \underline{\hspace{2cm}}$
Use distributive property to simplify.
 4. $(\underline{\quad} \times 8) + (13 \times 8) = (12 + \underline{\quad}) \times \underline{\quad}$
 5. $(54 \div \underline{\quad}) + (\underline{\quad} \div \underline{\quad}) = (\underline{\quad} + 27) \div 9$
-

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2, 4

Multiply.

- | | | |
|--|---|---|
| 1. $\begin{array}{r} 27 \\ 14 \\ \hline \end{array}$ | 2. $\begin{array}{r} 144 \\ 26 \\ \hline \end{array}$ | 3. $\begin{array}{r} 57642 \\ 79 \\ \hline \end{array}$ |
|--|---|---|

Divide.

Write remainder as whole number.

Write remainder as fraction.

- | | |
|---------------------------|---------------------------|
| 4. $7 \overline{) 14562}$ | 5. $9 \overline{) 38976}$ |
|---------------------------|---------------------------|

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 3

1. $\begin{array}{r} 12 \\ \times 12 \\ \hline \end{array}$

2. $\begin{array}{r} 11 \\ \times 8 \\ \hline \end{array}$

3. $11 \overline{) 121}$

4. $12 \overline{) 96}$

5. A farmer's wife collected 72 eggs. How many dozen eggs were collected?

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 10

Write each product using exponents.

1. $3 \times 3 \times 3 \times 3 =$

1. _____

2. $7 \times 7 =$

2. _____

3. $4 \times 4 \times 4 \times 4 \times 4 =$

3. _____

4. $8 \times 8 \times 8 =$

4. _____

5. $9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 =$

5. _____

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5, 6

Round the divisor to nearest ten, dividend to nearest hundred.
Estimate the answer.

1. $476 \div 23$ _____

2. $322 \div 45$ _____

3. $962 \div 97$ _____

4. $178 \div 39$ _____

5. $647 \div 71$ _____

Divide by standard algorithm; write answer in fractional form.

6.
$$\begin{array}{r} 23 \overline{) 476} \end{array}$$

7.
$$\begin{array}{r} 45 \overline{) 322} \end{array}$$

8.
$$\begin{array}{r} 97 \overline{) 962} \end{array}$$

9.
$$\begin{array}{r} 39 \overline{) 178} \end{array}$$

10.
$$\begin{array}{r} 71 \overline{) 647} \end{array}$$

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 7

Write each problem in two other division forms.

1. $\frac{35}{5}$ _____
2. _____ $76 \div 7$ _____
3. _____ $93 \overline{) 178}$
4. _____ $7 \overline{) 1432}$
5. $\frac{9382}{27}$ _____

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 8

set A = {banana, cherry, strawberry}

set B = {vanilla, chocolate, peach}

set C = $A \times B$

1. Write the members of set A x B
- _____
- _____
- _____

Write T or F to show whether statements about the above sets are true or false.

2. $n(A) \times n(B) = n(A \times B)$ _____
3. $n(A) + n(B) = n(A \times B)$ _____
4. $n(A \times B) = n(A+B)$ _____
5. $n(A \times B) = n(C)$ _____

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9

Name the average, range, and median for the data.

| | <u>Average</u> | <u>Range</u> | <u>Median</u> |
|--|----------------|--------------|---------------|
| 1. 68, 38, 97, 56, 71 | _____ | _____ | _____ |
| 2. 36, 45, 23, 17, 44 | _____ | _____ | _____ |
| 3. 1500, 50, 90, 80, 150 | _____ | _____ | _____ |
| 4. Frank played golf on Monday, Wednesday, and Thursday. He shot a 78, 86 and 67. What was his average for the three days? | | | _____ |
| 5. Matt averaged 126 catches in 9 innings. What was his average number of catches per inning in the game? | | | _____ |

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 11

Solve and label.

1. One day when Jane and Ned went to Niagara Falls, 1320 people rode across the Whirlpool on the cableway. Thirty people went in the cablecar each trip. How many trips did the cablecar make that day?

2. A jet plane traveling 1360 miles per hour is going very fast. The Wright brothers' plane flew about 34 miles per hour. How much faster is the jet than the Wright brothers' plane?

3. Jan drove 432 miles to Atlanta. Twenty-four gallons of gasoline were used. What was the average number of miles traveled per gallon?

4. Mr. Weeks bought 25 crates of grapefruit and 40 crates of oranges. If each crate weighed 30 pounds, how much did they weigh together?

5. Each school has 18 classrooms. Each classroom has 32 students. How many students in 44 schools?

LEVEL F

FRACTIONS

Skill 1, 2

Name _____

Date _____

Complete the equation.

1. $\frac{2}{3} = \frac{a}{6}$ $a =$ _____

2. $\frac{1}{2} = \frac{1 \times d}{2 \times e} = \frac{5}{10}$ $\frac{d}{e} =$ _____

3. $\frac{1}{3} \times \frac{b}{c} = \frac{3}{9}$ $\frac{b}{c} =$ _____

4. $\frac{3}{4} \times \frac{f}{g} = \frac{6}{8}$ $\frac{f}{g} =$ _____

List the next three equivalent fractions.

5. $\frac{3}{5} =$ _____, _____, _____

6. $\frac{7}{9} =$ _____, _____, _____

Change to mixed fractions. Put answer in lowest terms.

7. $\frac{9}{2} =$ _____

8. $\frac{16}{10} =$ _____

Change the mixed fractions to improper fractions.

9. $7\frac{3}{8} =$ _____

10. $4\frac{3}{7} =$ _____

LEVEL F

Name _____

FRACTIONS

Date _____

Skill 3, 4

Give answers in lowest terms.

$$\begin{array}{r} 1. \quad \frac{1}{3} \\ + \frac{4}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \frac{1}{3} \\ - \frac{2}{7} \\ \hline \end{array}$$

$$3. \quad \frac{3}{8} + \frac{1}{4} = \underline{\hspace{2cm}}$$

$$4. \quad \frac{3}{4} + \frac{1}{2} = \underline{\hspace{2cm}}$$

$$5. \quad \frac{4}{6} - \frac{1}{3} = \underline{\hspace{2cm}}$$

$$\begin{array}{r} 6. \quad 12 \frac{3}{5} \\ - 7 \frac{3}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 3 \frac{7}{8} \\ + 2 \frac{1}{3} \\ + 1 \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 9 \frac{3}{4} \\ - 3 \frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 4 \frac{3}{4} \\ - 3 \frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 7 \frac{9}{11} \\ + 6 \\ \hline \end{array}$$

LEVEL F

Name _____

FRACTIONS

Date _____

Skill 7

Multiply or divide.

$$1. \quad 7 \times \frac{1}{3} = \underline{\hspace{2cm}}$$

$$2. \quad \frac{1}{4} \times 8 = \underline{\hspace{2cm}}$$

$$3. \quad 8 \div \underline{\hspace{2cm}} = 2$$

$$4. \quad 2 \times \frac{3}{5} = \underline{\hspace{2cm}}$$

$$5. \quad \frac{7}{8} \times 5 = \underline{\hspace{2cm}}$$

LEVEL F

FRACTIONS

Skill 5, 6

Name _____

Date _____

Put $>$, $<$, or $=$ in each \bigcirc .

1. $8/6 - 1/3 \bigcirc 7/10 + 2/5$

2. $1/6 \times 2 \bigcirc 2 \frac{1}{2} + 2/3$

3. $2 \frac{1}{4} + 3/4 \bigcirc 4/6 - 7/12$

4. $6/8 - 3/4 \bigcirc 2/3 + 3/12$

5. $5/12 - 1/3 \bigcirc 6/12 \times 1/6$

Put these fractions in order from smallest to largest.

1. $9/2$, $1/9$, $3/6$, $4/5$ _____

2. $9/8$, $7/3$, $9/4$, $15/12$ _____

3. $3 \frac{1}{4}$, $7/4$, $2 \frac{1}{8}$, $1 \frac{7}{8}$ _____

4. $2/12$, $3/6$, $2/3$, $5/8$ _____

5. $4/6$, $3 \frac{1}{8}$, $2/4$, $6/8$ _____

LEVEL F

Name _____

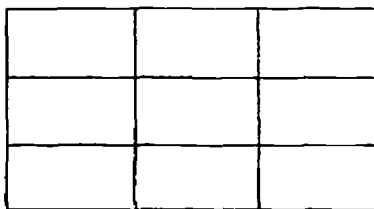
FRACTIONS

Date _____

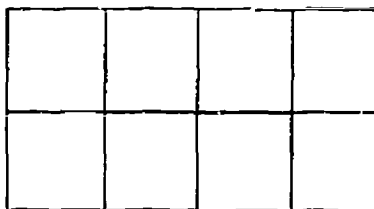
Skill 8

Shade the region represented by the problem and write the answer.

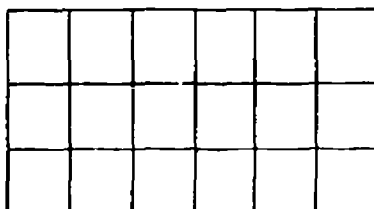
1. $\frac{1}{3} \times \frac{2}{3} =$ _____



2. $\frac{2}{4} \times \frac{1}{2} =$ _____

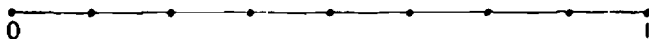


3. $\frac{2}{6} \times \frac{2}{3} =$ _____

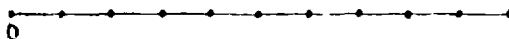


Indicate your answer on the line and number line.

4. $\frac{1}{4} \times \frac{1}{2} =$ _____



5. $\frac{1}{2} \times \frac{1}{5} =$ _____



LEVEL F

Name _____

FRACTIONS

Date _____

Skill 9

Solve and label.

1. In a school track meet Ed jumped $6 \frac{1}{4}$ feet, Howard jumped $5 \frac{1}{3}$ feet and Bill jumped $7 \frac{1}{6}$ feet. How many feet did the three jump together?

2. Connie caught a sailfish that weighed $67 \frac{1}{2}$ pounds and a hammer-head shark that weighed $105 \frac{3}{4}$ pounds. What was the difference between the weights of the two fish?

3. Close to sea level, air presses on each square inch of your body with a force of $14 \frac{7}{10}$ pounds. What would be the pressure on the back of your right hand if it measures approximately 12 square inches?

4. If a car races 18 laps around a $\frac{1}{4}$ mile track, how many miles long is the race?

5. If Sybil can make an apron from $\frac{3}{4}$ of a yard of material, how many aprons can she make from 9 yards of material?

LEVEL F

Name _____

DECIMALS

Date _____

Skill 1, 2, 3, 4

1. Write the compact number for five thousand, three hundred twenty-four and ninety-six hundredths.

2. Write 698.7 in words.

3. Write the decimal equivalent for the following fractions.

a. $\frac{14}{100}$ _____

b. $\frac{25}{100}$ _____

c. $\frac{3}{10}$ _____

4. Write the equivalent fraction for each of the following decimals.

a. .60 _____

b. .75 _____

c. .3 _____

5. Arrange the following numbers in order from the smallest to largest.

a. 4.6, 9.58, 8.02, .95, .65, 9.7 _____

b. .54, 54.5, .5, 54.57, 5.4 _____

LEVEL F

Name _____

DECIMALS

Date _____

Skill 5

Add or subtract.

$$\begin{array}{r} 1. \quad 126.08 \\ + 23.9 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 14.28 \\ + 691.31 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 453.82 \\ - 51.2 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 28.32 \\ + 465.9 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 7642.80 \\ - 899.99 \\ \hline \end{array}$$

LEVEL F

Name _____

DECIMALS

Date _____

Skill 6

Find the product.

$$\begin{array}{r} 1. \quad .83 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 1.94 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 6.73 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 5.32 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 17.86 \\ \times 7 \\ \hline \end{array}$$

LEVEL F

Name _____

DECIMALS

Date _____

Skill 7, 8

Solve and label.

1. Nena has \$9.65. She will buy 6 yo-yos at \$1.25 each. How much money will she have left?

2. A baseball glove costs \$4.98. Two baseballs cost \$2.48. John bought three gloves and one baseball. How much did he spend?

3. A Boy Scout troop needed \$7.38 for transportation to a summer camp and \$8.46 for entrance fee. There are 9 boys in the troop. How much money will each boy have to bring?

4. When Betty started on her trip to Tennessee, the mileage on her car read 36,288.9. When she returned, it read 38,035.3. How far did she travel?

5. The previous Daytona Speedway record was 190.71 miles per hour. During qualifying this year, Buddy's car went 191.64 miles per hour. What was the difference between the old and the new record?

LEVEL F

GEOMETRY

Skill 1

Name _____

Date _____

Find the perimeter, to the nearest $\frac{1}{4}$ inch, of the following polygons.

1.



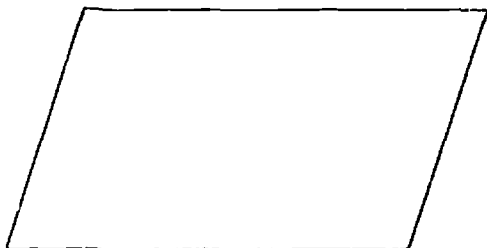
1. _____

2.



2. _____

3.

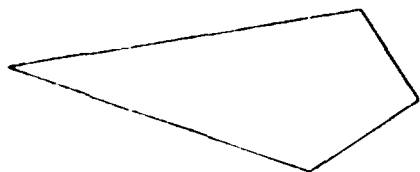


3. _____

4.



4. _____



5. _____

LEVEL F

Name _____

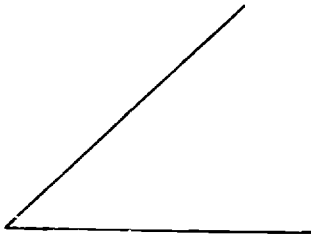
GEOMETRY

Date _____

Skill 2 (Page 1 of 2 pages)

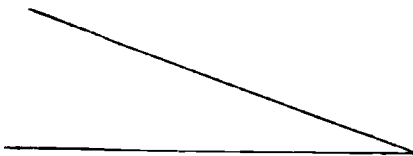
Measure the following angles using a protractor.

1.



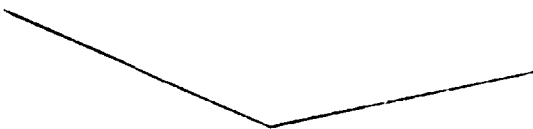
1. _____

2.



2. _____

3.



3. _____

Draw the following angles.

4. 45°



5. 106°



LEVEL F

Name _____

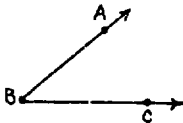
GEOMETRY

Date _____

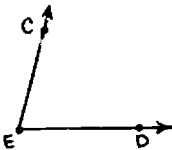
Skill 2 (Page 2 of 2 pages)

Construct angles congruent to each given angle.

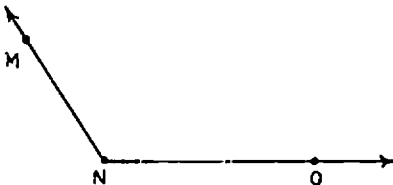
6.



7.

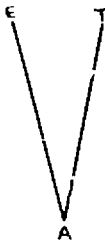
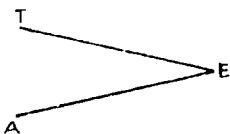


8.



Answer True or False.

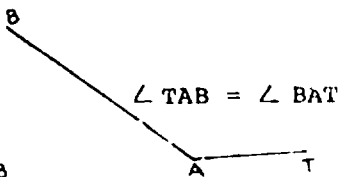
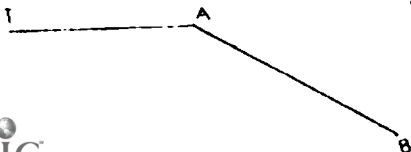
9.



$$\angle TEA = \angle EAT$$

9. _____

10.



$$\angle TAB = \angle BAT$$

10. _____

LEVEL F

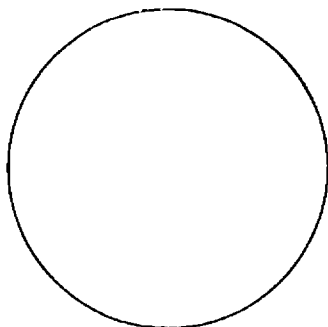
Name _____

GEOMETRY

Date _____

Skill 5

Use the figure to show your answers.



1. Locate point O as the center.
2. Draw a diameter, label it $A B$.
3. Draw a chord, which is not a diameter, label it $C D$.
4. What is the arc formed by the chord? _____
5. Name the radius. _____

LEVEL F

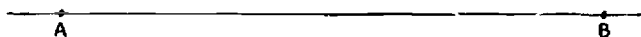
Name _____

GEOMETRY

Date _____

Skill 6

1. Use your compass to bisect line segment AB .



2. Draw a perpendicular line segment to line XY .



3. If you extend your line segment to intersect WZ , which is parallel to XY , will XY be perpendicular to WZ ?

3. _____

4. Draw \overline{AB} parallel to \overline{CD} .

5. Use \overline{AB} and \overline{CD} to construct a rectangle.

LEVEL F

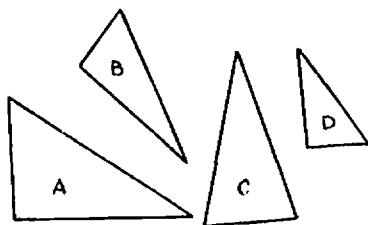
GEOMETRY

Skill 7

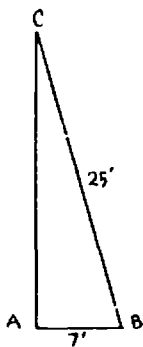
Name _____

Date _____

1. Name the triangles that appear to be similar.

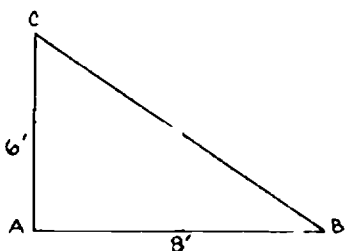


2. Construct and label a similar and a congruent triangle.



(a) _____

(b) _____



(c) _____

(d) _____

LEVEL F

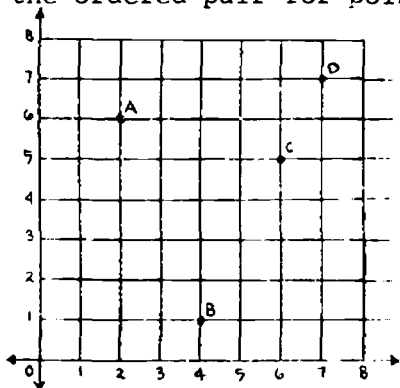
Name _____

GEOMETRY

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Skill 8, 9

1. Give the ordered pair for points A, B, C, D.



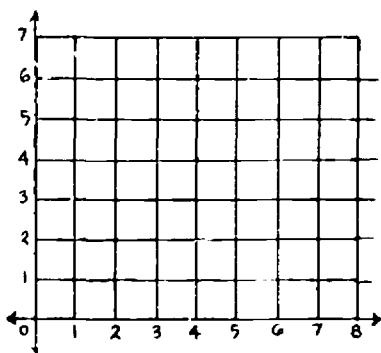
A = _____

B = _____

C = _____

D = _____

2. Graph the following pair of coordinates. Label points.



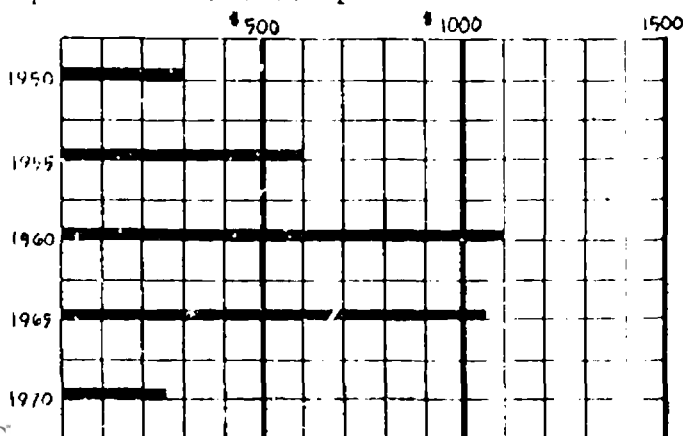
A = 3, 4

B = 7, 1

C = 1, 2

D = 2, 1

3. Graph of the interest paid Mr. Williamson on his savings account.



In what year
did he draw
the most
interest?

In what year
did he draw
the least?

LEVEL F

Name _____

GEOMETRY

Date _____

Skill 10

Solve and label.

1. At \$14.00 a ton, what is the cost of a load of coal weighing 4000 pounds?

2. The perimeter of a triangle is $364 \frac{1}{2}$ feet. One side is $102 \frac{1}{2}$ and the second side is $89 \frac{1}{2}$ feet. What is the length of the third side?

3. What is the distance around a room that is 20 feet long and 14 feet wide?

4. How many yards of fencing will be needed for a rectangular yard 150 feet long and 60 feet wide?

5. Nell spent her vacation at a mountain resort. Her hotel was $1 \frac{3}{4}$ miles from the top of the mountain. How many feet was this?

LEVEL F

Name _____

GEOMETRY

Date _____

Skill 11, 12

| | |
|--------|---------------------------|
| Table: | 1 millimeter = $1/1000$ |
| | 1 centimeter = $1/100$ |
| | 1 decimeter = $1/10$ |
| | 1 decameter = 10 meters |
| | 1 hectometer = 100 meters |
| | 1 kilometer = 1000 meters |

1. 6 cm = _____ mm

2. 70 dm = _____ m

3. 40 mm = _____ cm

4. 4 Km = _____ hm

5. 800 dkm = _____ km

| | |
|--------|---------------------|
| Table: | 1 cm = 0.39 in. |
| | 1 in. = 2.54 cm |
| | 1 meter = 39.37 in. |
| | 1 yard = 0.91 m |
| | 1 mile = 1.61 km |

1. 5 cm = _____ in.

2. 7 mi. = _____ km

3. 15 in. = _____ cm

4. 8 yd. = _____ m

5. 5 m = _____ in.

LEVEL F

Name _____

TIME

Date _____

Skill 1

Write the time in the blanks.

1. 7 hours, 15 minutes later than 10:00 A.M. is _____.

2. 5 hours, 45 minutes earlier than 2:00 P.M. is _____.

3. A fire company answered an alarm at 3:07 P.M. They fought the fire for ten hours before it was out. What time was it finally put out?

4. Jan's plane was due to land at 11:00 A.M. The plane was $3\frac{1}{2}$ hours late. What time did the plane land?

5. It takes Mr. Brown 8 hours to drive to Atlanta. If he left at 9:00 A.M., what time would he arrive?

LEVEL F

Name _____

TIME

Date _____

Skill 2

Complete each statement.

1. Two and a half decades is the same as _____ years.

2. "Four score and 7 years" is a familiar phrase. How many years does this represent?

3. Eighty-four days equals _____ fortnights.

4. Nineteen hundred seventy-one equals _____ centuries,
_____ score , _____ decades, _____ years.

5. Leap year has _____ days.

LEVEL F

Name _____

TIME

Date _____

Skill 3

Next to each time from a 24-hour clock, write the equivalent 12-hour clock time using A.M. or P.M.

Time - 24-hour clock

Time - 12-hour clock

1. 07:17

1. _____

2. 16:00

2. _____

3. 01:30

3. _____

4. 13:30

4. _____

5. 15:45

5. _____

LEVEL F

Name _____

TIME

Date _____

Skill 4, 5

Solve the problems. Label your answers A.M. or P.M.

1. A plane leaves New York (EST) 5:00 P.M. It arrives in Los Angeles (PST) when the plane arrives?

1. _____

2. John's family left Washington, D.C. (EST) at 7:00 A.M. They drove into Chicago (CST) 12 hours later. What time was it in Chicago when they arrived?

2. _____

3. A plane leaves California (PST) at 4:00 P.M. It arrives in Miami 6 1/2 hours later. What time is it in Miami (EST) when the plane arrives?

3. _____

4. In the summer Massachusetts is on daylight savings time and Georgia is on EST. A three and a half hour flight leaving Atlanta at 10:00 P.M. would arrive in Boston at what time?

4. _____

5. Suppose Connecticut operates on daylight savings time during the summer months and New Jersey does not. If Mr. Smith left Hartford, Conn. at 3:00 P.M. and arrived three hours later in Trenton, N.J., what time did he arrive?

5. _____

LEVEL F

Name _____

SPECIAL TOPICS

Date _____

Skill 1

1. With one flip of a coin, the probability that heads will be up is _____.
2. In one roll of a die, the probability of a four showing up is _____.
3. Complete the chart.

| Total number of buttons | 8 | 11 | 6 |
|-------------------------|---|----|---|
| red buttons | 2 | 3 | 1 |
| green buttons | 2 | 2 | 2 |
| blue buttons | 4 | 6 | 3 |
| P (red) | | | |
| P (green) | | | |
| P (blue) | | | |
| P (red or green) | | | |
| P (orange) | | | |

4. For $A = \{ \triangle \triangle \bigcirc \bigcirc \bigcirc \square \square \square \square \}$ what is:

$P(\square) = \underline{\hspace{2cm}}$

$P(\triangle \text{ or } \bigcirc \text{ or } \square) = \underline{\hspace{2cm}}$

$P(\star) = \underline{\hspace{2cm}}$

LEVEL F

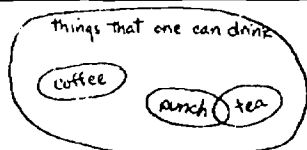
Name _____

SPECIAL TOPICS

Date _____

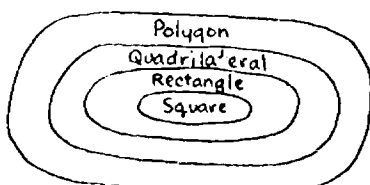
Skill 2, 3

1. If no odd numbers are evenly divisible by 2, are there some odd numbers divisible by 2? _____



Use the above diagram to label each statement is true or false.

2. If you can drink it, then it is tea. _____
3. If it is tea, then you can drink it. _____
4. If it is punch or tea, then you can drink it. _____



Use the above diagram to label each statement true or false.

5. A square is a polygon. _____
6. A square is a quadrilateral. _____
7. A polygon is a rectangle. _____
8. A rectangle is a quadrilateral. _____
9. A quadrilateral is a square. _____
10. A quadrilateral is a polygon. _____

LEVEL F

Name _____

NUMERATION

Date _____

Skill 1

Round to the nearest 100.

1. 444 400 2. 1679 1700 3. 1,111,111 1,111,100

Round to the nearest 1000.

4. 400 0 5. 5,555 6,000 6. 1,768,982 1,769,000

Round to the nearest 100,000.

7. 478,562 500,000 8. 987,654,320 987,700,000
9. 768,032,999 768,000,000 10. 85,743,279 85,700,000

LEVEL F

Name _____

NUMERATION

Date _____

Skill 9

Fill in the blanks.

1. 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121
2. 1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 5, 5, 5, 5, 5
3. 2, 5, 11, 23, 47, 95, 191
4. 17, 13, 18, 14, 19, 15, 20, 16, 21
5. 4, 16, 64, 256, 1024

NUMERATION

Date _____

Skill 2, 3

Write the number words for these numerals.

1. 34,135,675

1. thirty-four million, one hundred
thirty-five thousand, six hundred
seventy-five

2. 89,406,525

2. eighty-nine million, four hundred
six thousand, five hundred
twenty-five

3. 246,987,503

3. two hundred forty-six million,
nine hundred eighty-seven
thousand, five hundred three

Write the compact numeral for these number words.

4. Five hundred thousand, five hundred fifty

4. 500,550

5. Thirty-three thousand, three hundred sixty-eight.

5. 33,368

Write the place value of the underlined digit.

6. 55,555,555 ten thousands7. 123,456,789 ones8. 101,010,101 ten millions9. 89,643,205 hundredthousands10. 987,654,321 hundred millions

LEVEL P

Name _____

NOVEMBER

Date _____

Skill 4, 5

Write these products using a base and exponent.

1. $10 \times 10 \times 10 \times 10 =$

1. 10^4

2. $10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 =$

2. 10^8

Write the products.

3. $10^6 =$

3. $1,000,000$

4. $10^9 =$

4. $1,000,000,000$

5. $10^7 =$

5. $10,000,000$

In the following, underline the base and draw a circle around its exponent.

6. $10 \times \underline{10}^{(6)}$

7. $7 \times \underline{10}^{(4)}$

Write these numbers in expanded form using exponential notation.

8. $90 =$

8. 9×10^1

9. $60,000 =$

9. 6×10^4

10. $7,000,000 =$

10. 7×10^6

LEVEL F

Name _____

NUMERATION

Date _____

Skill 6, 7

List the factors of each number and the greatest common factor for each pair of numbers.

1. 8 1, 2, 4, 8
12 1, 2, 3, 4, 6, 12

GCF 4

2. 70 1, 2, 5, 7, 10, 14, 35, 70
35 1, 5, 7, 35

GCF 35

3. 9 1, 3, 9
24 1, 2, 3, 4, 6, 8, 12, 24

GCF 3

List the next five multiples for each number and the least common multiple for each pair of numbers.

4. 4 8, 12, 16, 20, 24
5 10, 15, 20, 25, 30

LCM 20

5. 12 24, 36, 48, 60, 72
10 20, 30, 40, 50, 60

LCM 60

LEVEL F

Name _____

NUMERATION

Date _____

Skill 8

Write the prime factors of the following numbers.

1. 37

1. 37×1

2. 9

2. 3×3

3. 79

3. 79×1

4. 85

4. 17×5

5. Which of the above numbers are prime? 37 and 79

LEVEL F

Name _____

NUMERATION

Date _____

Skill 10

Use the divisibility rule for 2, 3, 4, 5, 6, 9, and 10 of the following numbers.

1. 60 2, 3, 4, 5, 6, 10

2. 135 3, 5, 9

3. 4321 none

4. 246,420 2, 3, 4, 5, 6, 9, 10

5. What is the rule for testing a number for divisibility by 3?

The sum of the digits is a multiple of three.

LEVEL F

Name _____

NUMERATION

Date _____

Skill 11, 12

Name a set that could be the universe for:

1. $M = \{\text{apple, peach, pear, plum}\}$ one possible answer is fruit

2. $B = \{\text{New Zealand, Australia, Puerto Rico}\}$ islands or island countries

set A = {all dog breeds}

set B = {all dog breeds in America}

set C = {beagle, shepherd, chihuahua}

set D = {beagle, basset hound, bird dog}

set E = {Siamese cats}

set F = {shepherd, beagle, chihuahua}

Use the above information to decide if the following relations are true or false.

3. set A is a subset of B false

4. set B is a subset of A true

5. set C is a subset of B true

6. set C and D are equivalent sets true

7. set C and F are equal sets true

8. set E is a subset of A false

9. set E is disjoint true

10. set C and D intersect true

LEVEL F

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1

Add.

$$\begin{array}{r} 1. \quad 17,865 \\ 25,947 \\ \hline 23,102 \\ \hline 66,914 \end{array}$$

$$\begin{array}{r} 2. \quad 48,751 \\ 1,934 \\ \hline 27,254 \\ \hline 77,939 \end{array}$$

Subtract.

$$\begin{array}{r} 3. \quad 25,239 \\ 16,472 \\ \hline 8,737 \end{array}$$

$$\begin{array}{r} 4. \quad 19,275 \\ 10,986 \\ \hline 8,289 \end{array}$$

$$\begin{array}{r} 5. \quad 15,000 \\ 13,401 \\ \hline 1,599 \end{array}$$

LEVEL F

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 2

Solve and label your answers.

1. Mr. Green's speedometer registered 7492 miles when he started on a trip to Tallahassee and 8234 miles when he returned. How many miles did he travel?

742 miles

2. Ron plays quarterback for the Panthers. During the season, he carried the ball for 176 yards in one game, 135 yards in another and 162 in the last game. What was the total yardage Ron carried the ball?

473 yards

3. Mr. White raised 2092 bushels of apples in his orchard this year. Last year he raised 1737 bushels. How many more bushels did he raise this year than last year?

355 more bushels

4. The Pacific Ocean has an average depth of 14,048 feet and the Atlantic Ocean has an average depth of 12,880. How much deeper is the average depth of the Pacific Ocean than the Atlantic?

1168 feet

5. If 25,426 children under twelve, 14,539 children over twelve and 21,987 adults visited Disneyland in one day, what was the total number of people there that day?

61,952 people

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1

By using the commutative, associative or distributive properties, simplify the following:

1. $18 \times 8 = (10 \times 8) + (8 \times 8)$

2. $27 \times 40 = 27 \times (4 \times 10) = (27 \times 4) \times 10$

3. Use associative property to simplify.

$$(3 \times 4) \times 5 = 3 \times (4 \times 5)$$

Use distributive property to simplify.

4. $(12 \times 8) + (13 \times 8) = (12 + 13) \times 8$

5. $(54 \div 9) + (27 \div 9) = (54 + 27) \div 9$

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2, 4

Multiply.

$$\begin{array}{r} 1. \quad 27 \\ 14 \\ \hline 708 \\ 270 \\ \hline 378 \end{array}$$

$$\begin{array}{r} 2. \quad 144 \\ 26 \\ \hline 864 \\ 880 \\ \hline 3744 \end{array}$$

$$\begin{array}{r} 3. \quad 57642 \\ 79 \\ \hline 518778 \\ 4034940 \\ \hline 4553718 \end{array}$$

Divide.

Write remainder as whole number.

Write remainder as fraction.

$$\begin{array}{r} 4. \quad 7 \overline{) 14562} \text{ R. 2} \\ \underline{14000} \\ 562 \\ \underline{560} \\ 2 \end{array}$$

$$\begin{array}{r} 5. \quad 9 \overline{) 38976} \text{ R. 6} \\ \underline{36000} \\ 2976 \\ \underline{2700} \\ 276 \\ \underline{270} \\ 6 \end{array}$$

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 3

$$\begin{array}{r} 1. \quad 12 \\ \times 12 \\ \hline 144 \end{array}$$

$$\begin{array}{r} 2. \quad 11 \\ \times 8 \\ \hline 88 \end{array}$$

$$3. \quad \begin{array}{r} 11 \\ 11 \overline{) 121} \end{array}$$

$$4. \quad \begin{array}{r} 8 \\ 12 \overline{) 96} \end{array}$$

5. A farmer's wife collected 72 eggs. How many dozen eggs were collected?

6 dozen

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 10

Write each product using exponents.

1. $3 \times 3 \times 3 \times 3 =$

1. 3^4

2. $7 \times 7 =$

2. 7^2

3. $4 \times 4 \times 4 \times 4 \times 4 =$

3. 4^5

4. $8 \times 8 \times 8 =$

4. 8^3

5. $9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 =$

5. 9^7

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

SKILL 5, 6

Round the divisor to nearest ten, dividend to nearest hundred.
Estimate the answer.

1. $476 \div 23$ $500 \div 20 = 25$

2. $322 \div 45$ $300 \div 50 = 6$

3. $962 \div 97$ $1000 \div 100 = 10$

4. $178 \div 39$ $200 \div 40 = 5$

5. $647 \div 71$ $600 \div 70 = 8$

Divide by standard algorithm; write answer in fractional form.

6.
$$\begin{array}{r} 20 \frac{16}{23} \\ 23 \overline{) 476} \\ \underline{460} \\ 16 \end{array}$$

7.
$$\begin{array}{r} 7 \frac{2}{45} \\ 45 \overline{) 322} \\ \underline{315} \\ 7 \end{array}$$

8.
$$\begin{array}{r} 9 \frac{89}{97} \\ 97 \overline{) 962} \\ \underline{873} \\ 89 \end{array}$$

9.
$$\begin{array}{r} 4 \frac{22}{39} \\ 39 \overline{) 178} \\ \underline{156} \\ 22 \end{array}$$

10.
$$\begin{array}{r} 9 \frac{8}{71} \\ 71 \overline{) 647} \\ \underline{639} \\ 8 \end{array}$$

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 7

Write each problem in two other division forms.

1. $\frac{35}{5}$

$35 \div 5$

$5 \overline{) 35}$

2. $\frac{76}{7}$

$76 \div 7$

$7 \overline{) 76}$

3. $\frac{178}{93}$

$178 \div 93$

$93 \overline{) 178}$

4. $\frac{1432}{7}$

$1432 \div 7$

$7 \overline{) 1432}$

5. $\frac{9382}{27}$

$9382 \div 27$

$27 \overline{) 9382}$

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 8

set A = {banana, cherry, strawberry}

set B = {vanilla, chocolate, peach}

set C = A(x)B

1. Write the members of set A x B

*banana, vanilla; banana, chocolate; banana, peach;
 cherry, vanilla; cherry, chocolate; cherry, peach;
 strawberry, vanilla; strawberry, chocolate; strawberry, peach.*

Write T or F to show whether statements about the above sets are true or false.

2. $n(A) \times n(B) = n(A \times B)$ T

3. $n(A) + n(B) = n(A \times B)$ F

4. $n(A \times B) = n(A + B)$ F

5. $n(A \times B) = n(C)$ T

LEVEL F

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 9

Name the average, range, and median for the data.

- | | <u>Average</u> | <u>Range</u> | <u>Median</u> |
|--|----------------|--------------|----------------------|
| 1. 68, 38, 97, 56, 71 | <u>66</u> | <u>59</u> | <u>68</u> |
| 2. 36, 45, 23, 17, 44 | <u>33</u> | <u>28</u> | <u>35</u> |
| 3. 1500, 50, 90, 80, 150 | <u>374</u> | <u>1450</u> | <u>90</u> |
| 4. Frank played golf on Monday, Wednesday, and Thursday. He shot a 78, 86 and 67. What was his average for the three days? | | | <u>77</u> |
| 5. Matt averaged 126 catches in 9 innings. What was his average number of catches per inning in the game? | | | <u>14</u> catches |

LEVEL 1

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 11

Solve and label.

1. One day when Jane and Ned went to Niagara Falls, 1320 people rode across the Whirlpool on the cableway. Thirty people went in the cablecar each trip. How many trips did the cablecar make that day?

44 trips

2. A jet plane traveling 1360 miles per hour is going very fast. The Wright brothers' plane flew about 34 miles per hour. How much faster is the jet than the Wright brothers' plane?

40 times faster

3. Jan drove 432 miles to Atlanta. Twenty-four gallons of gasoline were used. What was the average number of miles traveled per gallon?

18 miles per gallon

4. Mr. Weeks bought 25 crates of grapefruit and 40 crates of oranges. If each crate weighed 30 pounds, how much did they weigh together?

1950 pounds

5. Each school has 18 classrooms. Each classroom has 32 students. How many students in 44 schools?

25,344 students

LEVEL F

FRACTIONS

Skill 1, 2

Name _____

Date _____

Complete the equation.

1. $\frac{2}{3} = \frac{a}{6}$ $a = \underline{4}$

2. $\frac{1}{2} = \frac{1 \times d}{2 \times e} = \frac{5}{10}$ $\frac{d}{e} = \underline{\frac{5}{5}}$

3. $\frac{1}{3} \times \frac{b}{c} = \frac{3}{9}$ $\frac{b}{c} = \underline{\frac{3}{3}}$

4. $\frac{3}{4} \times \frac{f}{g} = \frac{6}{8}$ $\frac{f}{g} = \underline{\frac{2}{2}}$

List the next three equivalent fractions.

5. $\frac{3}{5} = \underline{\frac{6}{10}}, \underline{\frac{9}{15}}, \underline{\frac{12}{20}}$

6. $\frac{7}{9} = \underline{\frac{14}{18}}, \underline{\frac{21}{27}}, \underline{\frac{28}{36}}$

Change to mixed fractions. Put answer in lowest terms.

7. $\frac{9}{2} = \underline{4\frac{1}{2}}$

8. $\frac{16}{10} = \underline{1\frac{3}{5}}$

Change the mixed fractions to improper fractions.

9. $7\frac{3}{8} = \underline{\frac{59}{8}}$

10. $4\frac{3}{7} = \underline{\frac{31}{7}}$

LEVEL F

Name _____

FRACTIONS

Date _____

Skill 3, 4

Give answers in lowest terms.

1. $\frac{1}{3}$

$$+ \frac{4}{6}$$

1

2. $\frac{1}{3}$

$$- \frac{2}{7}$$

$\frac{1}{21}$

3. $\frac{3}{3} + \frac{1}{4} = \underline{\frac{5}{8}}$

4. $\frac{3}{4} + \frac{1}{2} = \underline{1\frac{1}{4}}$

5. $\frac{4}{6} - \frac{1}{3} = \underline{\frac{1}{3}}$

6. $12\frac{3}{5}$
 $- 7\frac{3}{10}$

 $5\frac{3}{10}$

7. $3\frac{7}{8}$

$2\frac{1}{3}$

$+ 1\frac{1}{2}$

$7\frac{17}{24}$

8. $9\frac{3}{4}$

$- 3\frac{5}{6}$

$6\frac{1}{8}$

9. $4\frac{3}{4}$

$- 3\frac{2}{5}$

$1\frac{7}{10}$

10. $7\frac{9}{11}$

$+ 6$

$13\frac{9}{11}$

LEVEL F

Name _____

FRACTIONS

Date _____

Skill 7

Multiply or divide.

1. $7 \times \frac{1}{3} = \underline{2\frac{1}{3}}$

2. $\frac{1}{4} \times 8 = \underline{2}$

3. $8 \div \underline{4} = 2$

4. $2 \times \frac{3}{5} = \underline{1\frac{1}{5}}$

5. $\frac{7}{8} \times 4 = \underline{4\frac{3}{8}}$

LEVEL F

FRACTIONS

Skill 5, 6

Name _____

Date _____

Put $>$, $<$, or $=$ in each \bigcirc .

1. $8/6 - 1/3$ \bigcirc $7/10 + 2/5$

2. $1/6 \times 2$ \bigcirc $2 \frac{1}{2} + 2/3$

3. $2 \frac{1}{4} + 3/4$ \bigcirc $4/6 - 7/12$

4. $6/8 - 3/4$ \bigcirc $2/3 + 3/12$

5. $5/12 - 1/3$ \bigcirc $6/12 \times 1/6$

Put these fractions in order from smallest to largest.

1. $9/2$, $1/9$, $3/6$, $4/5$

$\frac{1}{9}$, $\frac{3}{6}$, $\frac{4}{5}$, $\frac{9}{2}$

2. $9/8$, $7/3$, $9/4$, $15/12$

$\frac{9}{8}$, $\frac{15}{12}$, $\frac{9}{4}$, $\frac{7}{3}$

3. $3 \frac{1}{4}$, $7/4$, $2 \frac{1}{8}$, $1 \frac{7}{8}$

$\frac{7}{4}$, $1 \frac{7}{8}$, $2 \frac{1}{8}$, $3 \frac{1}{4}$

4. $2/12$, $3/6$, $2/3$, $5/8$

$\frac{2}{12}$, $\frac{3}{6}$, $\frac{5}{8}$, $\frac{2}{3}$

5. $4/6$, $3 \frac{1}{8}$, $2/4$, $6/8$

$\frac{2}{4}$, $\frac{4}{6}$, $\frac{6}{8}$, $3 \frac{1}{8}$

LEVEL F

FRACTIONS

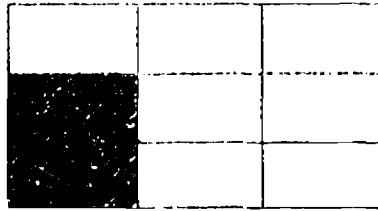
Skill 8

Name _____

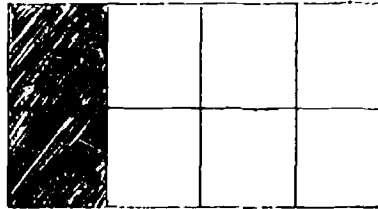
Date _____

Shade the region represented by the problem and write the answer.

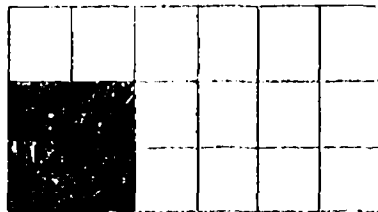
1. $1/3 \times 2/3 = \underline{\frac{2}{9}}$



2. $2/4 \times 1/2 = \underline{\frac{2}{8}}$

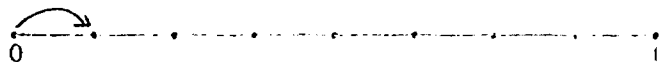


3. $2/6 \times 2/3 = \underline{\frac{4}{18}}$

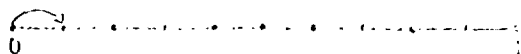


Indicate your answer on the line and number line.

4. $1/4 \times 1/2 = \underline{\frac{1}{8}}$



5. $1/2 \times 1/5 = \underline{\frac{1}{10}}$



LEVEL F

Name _____

FRACTIONS

Date _____

Skill 9

Solve and label.

1. In a school track meet Ed jumped $6 \frac{1}{4}$ feet, Howard jumped $5 \frac{1}{3}$ feet and Bill jumped $7 \frac{1}{6}$ feet. How many feet did the three jump together?

$18 \frac{3}{4}$ feet

2. Connie caught a sailfish that weighed $67 \frac{1}{2}$ pounds and a hammer-head shark that weighed $105 \frac{3}{4}$ pounds. What was the difference between the weights of the two fish?

$38 \frac{1}{4}$ pounds

3. Close to sea level, air presses on each square inch of your body with a force of $14 \frac{7}{10}$ pounds. What would be the pressure on the back of your right hand if it measures approximately 12 square inches?

$176 \frac{2}{5}$ pounds

4. If a car races 18 laps around a $\frac{1}{4}$ mile track, how many miles long is the race?

$4 \frac{1}{2}$ miles

5. If Sybil can make an apron from $\frac{3}{4}$ of a yard of material, how many aprons can she make from 9 yards of material?

12 Aprons

LEVEL F

Name _____

DECIMALS

Date _____

Skill 1, 2, 3, 4

1. Write the compact number for five thousand, three hundred twenty-four and ninety-six hundredths.

5324.96

2. Write 698.7 in words. six hundred, ninety-eight and seven tenths.

3. Write the decimal equivalent for the following fractions.

a. $\frac{14}{100}$ fourteen hundredths

b. $\frac{25}{100}$ twenty-five hundredths

c. $\frac{3}{10}$ three tenths

4. Write the equivalent fraction for each of the following decimals.

a. .60 six tenths or sixty hundredths

b. .75 seventy-five hundredths

c. .3 three tenths

5. Arrange the following numbers in order from the smallest to largest.

a. 4.6, 9.58, 8.02, .95, .65, 9.7
.65, .95, 4.6, 8.02, 9.58, 9.7

b. .54, 54.5, .5, 54.57, 5.4
.5, .54, 5.4, 54.5, 54.57

LEVEL F

Name _____

DECIMALS

Date _____

Skill 5

Add or subtract.

$$\begin{array}{r} 1. \quad 126.08 \\ + 23.9 \\ \hline 149.98 \end{array}$$

$$\begin{array}{r} 2. \quad 14.28 \\ + 691.31 \\ \hline 705.59 \end{array}$$

$$\begin{array}{r} 3. \quad 453.82 \\ - 51.2 \\ \hline 402.62 \end{array}$$

$$\begin{array}{r} 4. \quad 28.32 \\ + 465.9 \\ \hline 494.22 \end{array}$$

$$\begin{array}{r} 5. \quad 7642.80 \\ - 899.99 \\ \hline 6742.81 \end{array}$$

LEVEL F

Name _____

DECIMALS

Date _____

Skill 6

Find the product.

$$\begin{array}{r} 1. \quad .83 \\ \times 4 \\ \hline 3.32 \end{array}$$

$$\begin{array}{r} 2. \quad 1.94 \\ \times 5 \\ \hline 9.70 \end{array}$$

$$\begin{array}{r} 3. \quad 6.73 \\ \times 3 \\ \hline 20.19 \end{array}$$

$$\begin{array}{r} 4. \quad 5.32 \\ \times 9 \\ \hline 47.88 \end{array}$$

$$\begin{array}{r} 5. \quad 17.86 \\ \times 7 \\ \hline 125.02 \end{array}$$

LEVEL F

Name _____

DECIMALS

Date _____

Skill 7, 8

Solve and label.

1. Nena has \$9.65. She will buy 6 yo-yos at \$1.25 each. How much money will she have left?

\$ 2.15

2. A baseball glove costs \$4.98. Two baseballs cost \$2.48. John bought three gloves and one baseball. How much did he spend?

\$ 16.18

3. A Boy Scout troop needed \$7.38 for transportation to a summer camp and \$8.46 for entrance fee. There are 9 boys in the troop. How much money will each boy have to bring?

\$ 1.76

4. When Betty started on her trip to Tennessee, the mileage on her car read 36,288.9. When she returned, it read 38,035.3. How far did she travel?

1,746.4 miles

5. The previous Daytona Speedway record was 190.71 miles per hour. During qualifying this year, Buddy's car went 191.64 miles per hour. What was the difference between the old and the new record?

.93 miles per hour

LEVEL F

Name _____

GEOMETRY

Date _____

Skill 1

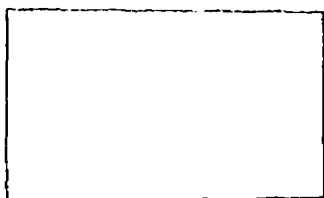
Find the perimeter, to the nearest $\frac{1}{4}$ inch, of the following polygons.

1.



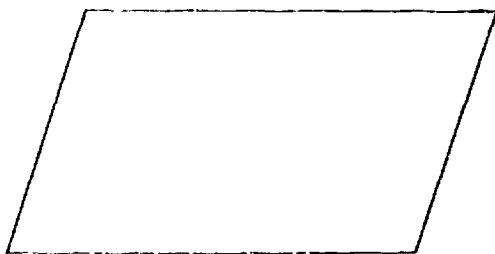
1. $6\frac{1}{4}$ inches

2.



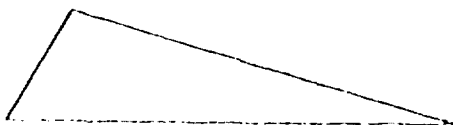
2. $6\frac{1}{2}$ inches

3.

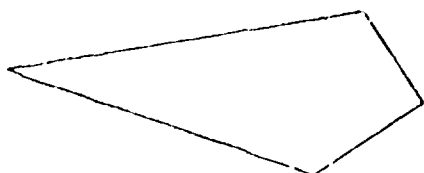


3. $8\frac{1}{2}$ inches

4.



4. 6 inches

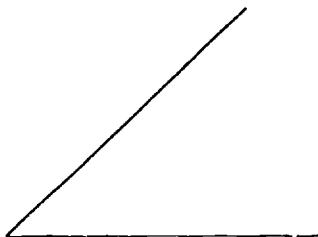


5. $5\frac{3}{4}$ inches

Skill 2 (Page 1 of 2 pages)

Measure the following angles using a protractor.

1.

1. 43°

2.

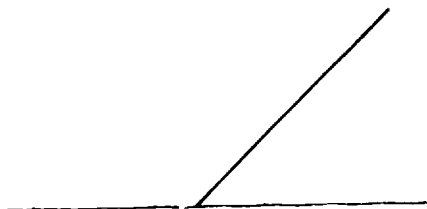
2. 20°

3.

3. 145°

Draw the following angles.

4. 45°



5. 106°



LEVEL: F

Name _____

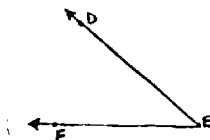
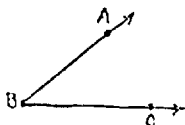
GEOMETRY

Date _____

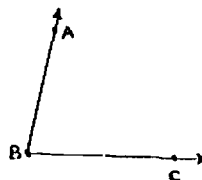
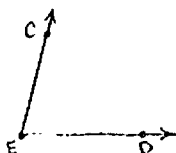
Skill 2 (Page 2 of 2 pages)

Construct angles congruent to each given angle.

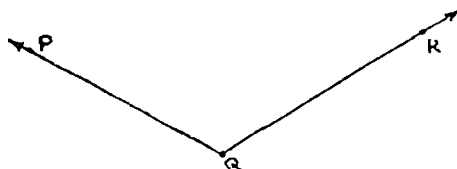
6.



7.

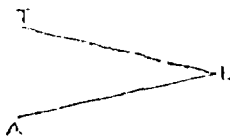


8.



Answer True or False.

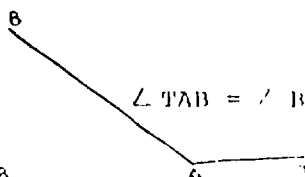
9.



$$\angle TEA = \angle BAT$$

9. T

10.



$$\angle TAB = \angle BAT$$

10. F

LEVEL F

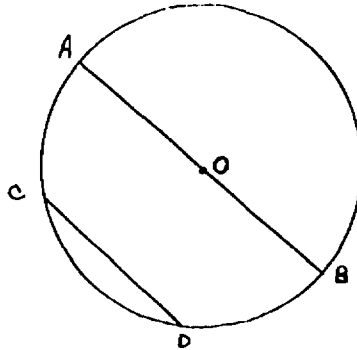
GEOMETRY

Skill 5

Name _____

Date _____

Use the figure to show your answers.



1. Locate point O as the center.
2. Draw a diameter, label it A B.
3. Draw a chord, which is not a diameter, label it C D.
4. What is the arc formed by the chord? \widehat{CD}
5. Name the radius. AO or BO

LEVEL F

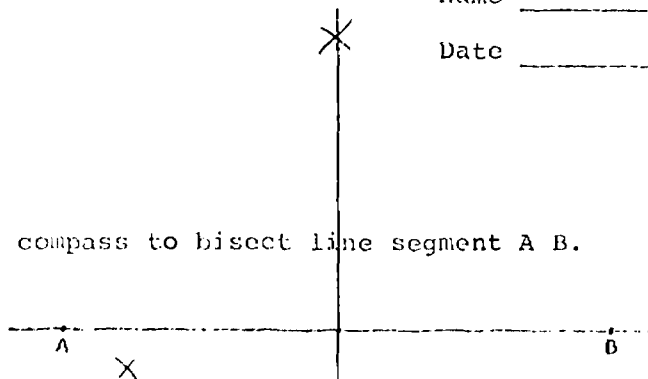
GEOMETRY

Skill 6

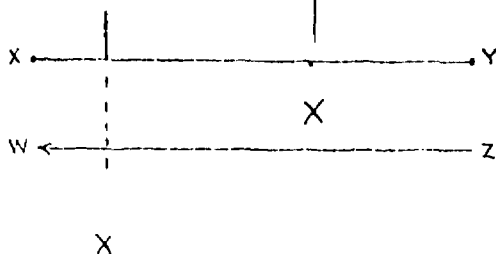
Name _____

Date _____

1. Use your compass to bisect line segment A B.



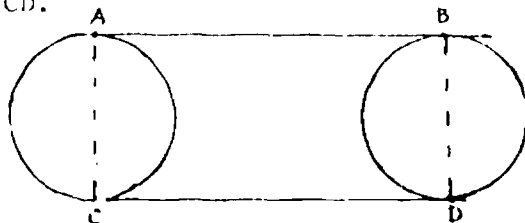
2. Draw a perpendicular line segment to line X Y.



3. If you extend your line segment to intersect W Z, which is parallel to X Y, will it be perpendicular to W Z?

3. yes

4. Draw \overline{AB} parallel to \overline{CD} .



5. Use \overline{AB} and \overline{CD} to construct a rectangle.

indicated by dotted line in figure.

LEVEL F

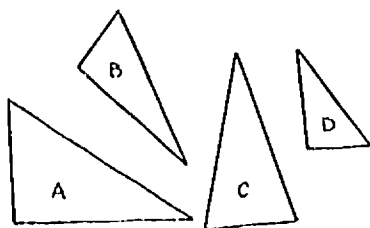
GEOMETRY

Skill 7

Name _____

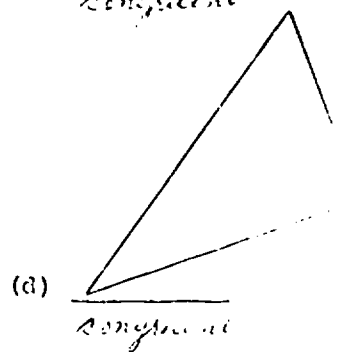
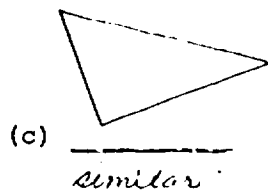
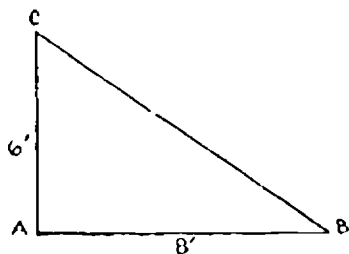
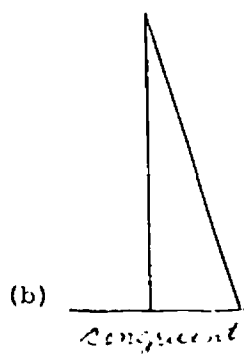
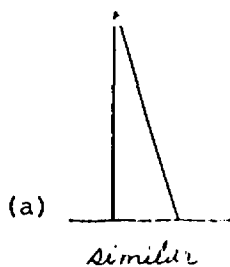
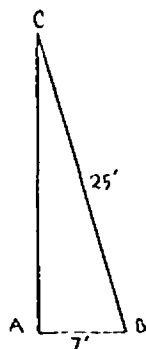
Date _____

1. Name the triangles that appear to be similar.



A and D

2. Construct and label a similar and a congruent triangle.



LEVEL F

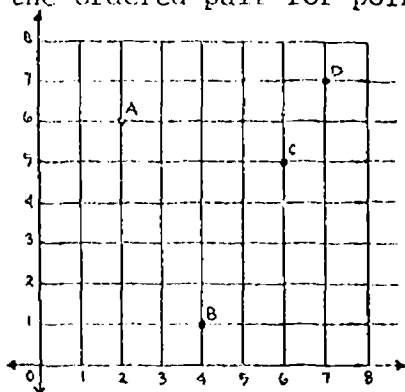
Name _____

GEOMETRY

Date _____

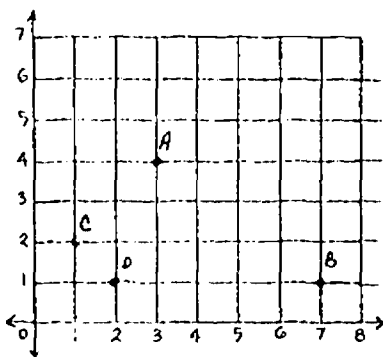
Skill 8, 9

1. Give the ordered pair for points A, B, C, D.



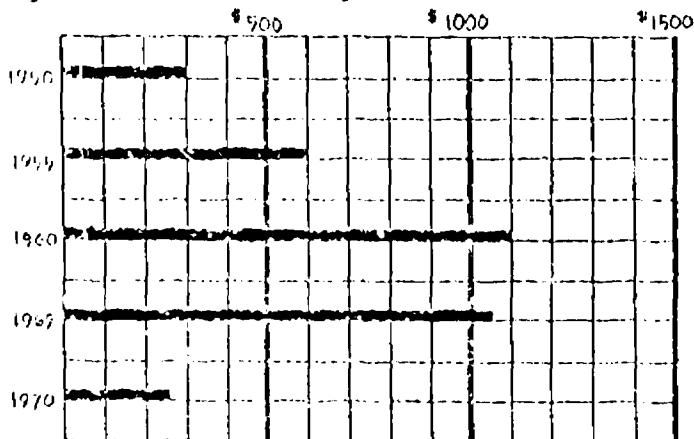
A = 2, 6
 B = 4, 1
 C = 6, 5
 D = 7, 7

2. Graph the following pair of coordinates. Label points.



A = 3, 4
 B = 7, 1
 C = 1, 2
 D = 2, 1

3. Graph of the interest paid Mr. Williamson on his savings account.



In what year
 did he draw
 the most
 interest?

1960

In what year
 did he draw
 the least? 1970

LEVEL F

Name _____

GEOMETRY

Date _____

Skill 10

Solve and label.

1. At \$14.00 a ton, what is the cost of a load of coal weighing 4000 pounds?

\$28.00

2. The perimeter of a triangle is $364 \frac{1}{2}$ feet. One side is $102 \frac{1}{2}$ and the second side is $89 \frac{1}{2}$ feet. What is the length of the third side?

$172 \frac{1}{2}$ feet

3. What is the distance around a room that is 20 feet long and 14 feet wide?

140 yards

4. How many yards of fencing will be needed for a rectangular yard 150 feet long and 60 feet wide?

68 feet

5. Nell spent her vacation at a mountain resort. Her hotel was $1 \frac{3}{4}$ miles from the top of the mountain. How many feet was this?

9240 feet

LEVEL F

GEOMETRY

Skill 11, 12

Name _____

Date _____

| | |
|--------|---------------------------|
| Table: | 1 millimeter = $1/1000$ |
| | 1 centimeter = $1/100$ |
| | 1 decimeter = $1/10$ |
| | 1 decameter = 10 meters |
| | 1 hectometer = 100 meters |
| | 1 kilometer = 1000 meters |

1. 6 cm = 60 mm

2. 70 dm = 7 m

3. 40 mm = 4 cm

4. 4 Km = 40 hm

5. 800 dkm = 8 km

| | |
|--------|---------------------|
| Table: | 1 cm = 0.39 in. |
| | 1 in. = 2.54 cm |
| | 1 meter = 39.37 in. |
| | 1 yard = 0.91 m |
| | 1 mile = 1.61 km |

1. 5 cm = 1.95 in.

2. 7 mi. = 11.27 km

3. 15 in. = 38.10 cm

4. 8 yd. = 7.28 m

5. 5 m = 196.85 in.

LEVEL F

Name _____

TIME

Date _____

Skill 1

Write the time in the blanks.

1. 7 hours, 15 minutes later than 10:00 A.M. is 5:15 p.m.

2. 5 hours, 45 minutes earlier than 2:00 P.M. is 8:15 a.m.

3. A fire company answered an alarm at 3:07 P.M. They fought the fire for ten hours before it was out. What time was it finally put out?

1:07 a.m.

4. Jan's plane was due to land at 11:00 A.M. The plane was 3 1/2 hours late. What time did the plane land?

2:30 p.m.

5. It takes Mr. Brown 8 hours to drive to Atlanta. If he left at 9:00 A.M., what time would he arrive?

5:00 p.m.

LEVEL F

Name _____

TIME

Date _____

Skill 2

Complete each statement.

1. Two and a half decades is the same as 25 years.

2. "Four score and 7 years" is a familiar phrase. How many years does this represent?

87

3. Eighty-four days equals 6 fortnights.

4. Nineteen hundred seventy-one equals 19 centuries,
3 score, 1 decades, 1 years.

5. Leap year has 366 days.

LEVEL F

TIME

Skill 3

Name _____

Date _____

Next to each time from a 24-hour clock, write the equivalent 12-hour clock time using A.M. or P.M.

Time - 24-hour clock

Time - 12-hour clock

1. 07:17

1. 7:17 a.m.

2. 16:00

2. 4:00 p.m.

3. 01:30

3. 1:30 a.m.

4. 13:30

4. 1:30 p.m.

5. 15:45

5. 3:45 p.m.

LEVEL F

Name _____

TIME

Date _____

Skill 4, 5

Solve the problems. Label your answers A.M. or P.M.

1. A plane leaves New York (EST) 5:00 P.M. It arrives in Los Angeles (PST) when the plane arrives?

1. 6 p.m. PST

2. John's family left Washington, D.C. (EST) at 7:00 A.M. They drove into Chicago (CST) 12 hours later. What time was it in Chicago when they arrived?

2. 6 p.m. CST

3. A plane leaves California (PST) at 4:00 P.M. It arrives in Miami 6 1/2 hours later. What time is it in Miami (EST) when the plane arrives?

3. 9:30 p.m. EST

4. In the summer Massachusetts is on daylight savings time and Georgia is on EST. A three and a half hour flight leaving Atlanta at 10:00 P.M. would arrive in Boston at what time?

4. 12:30 a.m. EDST

5. Suppose Connecticut operates on daylight savings time during the summer months and New Jersey does not. If Mr. Smith left Hartford, Conn. at 3:00 P.M. and arrived three hours later in Trenton, N.J., what time did he arrive?

5. 5:00 p.m. EST

LEVEL F

Name _____

SPECIAL TOPICS

Date _____

Skill 1

1. With one flip of a coin, the probability that heads will be up is $\frac{1}{2}$.
2. In one roll of a die, the probability of a four showing up is $\frac{1}{6}$.
3. Complete the chart.

| Total number of buttons | 8 | 11 | 6 |
|-------------------------|--------------------------------|----------------|--------------------------------|
| red buttons | 2 | 3 | 1 |
| green buttons | 2 | 2 | 2 |
| blue buttons | 4 | 6 | 3 |
| P (red) | $\frac{2}{8}$ or $\frac{1}{4}$ | $\frac{3}{11}$ | $\frac{1}{6}$ |
| P (green) | $\frac{2}{8}$ or $\frac{1}{4}$ | $\frac{2}{11}$ | $\frac{2}{6}$ or $\frac{1}{3}$ |
| P (blue) | $\frac{4}{8}$ or $\frac{1}{2}$ | $\frac{6}{11}$ | $\frac{3}{6}$ or $\frac{1}{2}$ |
| P (red or green) | $\frac{4}{8}$ or $\frac{1}{2}$ | $\frac{5}{11}$ | $\frac{3}{6}$ or $\frac{1}{2}$ |
| P (orange) | 0 | 0 | 0 |

4. For $A = \{\Delta \Delta \bigcirc \bigcirc \bigcirc \square \square \square \square\}$ what is:

$P(\square) = \frac{4}{9}$

$P(\Delta \text{ or } \bigcirc \text{ or } \square) = \frac{10}{9}$

$P(\star) = 0$

LEVEL F

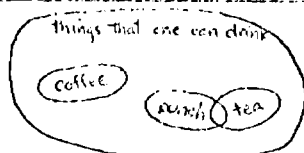
Name _____

SPECIAL TOPICS

Date _____

Skill 2, 3

1. If no odd numbers are evenly divisible by 2, are there some odd numbers divisible by 2? no

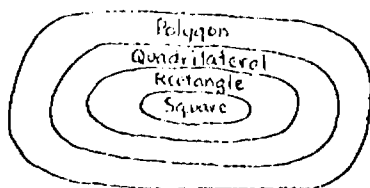


Use the above diagram to label each statement is true or false.

2. If you can drink it, then it is tea. false

3. If it is tea, then you can drink it. true

4. If it is punch or tea, then you can drink it. true



Use the above diagram to label each statement true or false.

5. A square is a polygon. true

6. A square is a quadrilateral. true

7. A polygon is a rectangle. false

8. A rectangle is a quadrilateral. true

9. A quadrilateral is a square. false

10. A quadrilateral is a polygon. true

MATHEMATICS CONTINUUM

LEVEL G

BOOK 6

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

Metric and Non-Metric Geometry have been combined under the heading Geometry.

Money has not been keyed because it is interspersed with other topics.

The conversion tables are listed in the Strategy Manual.

LEVEL G

NUMERATION



Review of Level F Skills

1. Uses the place value concept to write in words, numerals to the thousands, millions, and billions place and vice-versa.
2. Identifies true, false, or open number sentences as related to sets.
3. Identifies the set which contains all the solutions of the open sentence.
4. Uses the divisibility rule for 8 and 9.
5. Lists the factors of and gives the prime factorization of given whole numbers. Tests any number to determine whether it is prime or composite.
6. Solves equations using clock arithmetic.

Example

Numeration

Write in digit form a numeral for the following number.

- a. forty-six billion, thirty-seven million.

46,037,000,000

Ring the open sentence.

$n < 2$, $n - 2 = 3$, $n + 5 = 9$

Name the solution set for the open sentence if the replacement set is:

$A = \{1, 3, 5, 7, 9, 11\}$

$16 - n > 8$

$A = \{1, 3, 5, 7\}$

Circle the numbers that are divisible by 8 and place a rectangle around the numbers that are divisible by 9.

625, 264, 189, 672, 558

Find the factors of the numbers below. Draw a circle around the prime numbers.

- (a) 15 (b) 17 (c) 51
(d) 89

(a) 3×5

(c) 3×17

(b) 17×1

(d) 89×1

Solve the equation.

$4 + 9 \stackrel{!}{=} b$ $b = 1$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--|--------------|
| <u>numeration</u> | | |
| HM Book 6, pp. 1-11, 16, 19, 20, 22, 166, 167 | HM Visuals 6 (1, 2) HM Masters 6 (1, 2, 4, 37) | |
| 1. HM Book 6, pp. 19, 28 | H | |
| 2. HM Book 6, pp. 12, 13 | | |
| 3. HM Book 6, pp. 130-139, 330, 331 | HM Visuals 6 (12) HM Masters 6 (31, 32) | |
| 4. HM Book 6, pp. 182, 183 | HM Masters 6 (40) | |
| 5. HM Book 6, pp. 164, 165, 168-175, 177 | HM Visuals 6 (14, 16) HM Masters 6 (38, 39) | |
| 6. HM Book 6, pp. 188-192 | | |

LEVEL G

Numeration

7. Compares clock arithmetic with the arithmetic of whole numbers.
8. Identifies which numbers can appear in other number bases and answers multiple choice questions about their characteristics.
9. Changes the numbers in the decimal base system to numbers in another base system and vice versa. Makes a place value chart to compare base ten with another base. Base raised only to 4th power.
10. Mixed Practice.
11. In-Depth.

Example

Numeration

List the solutions for the following equations.

$$\begin{array}{r} 3 \times (4+3) = \underline{21} \\ 3 \times (4+3) = \underline{0} \end{array}$$

Circle the numbers which can appear in base five.

(421) 35 (22) 731

Find the base five numeral which equals this base 10 numeral.

$$\begin{array}{rcccl} 74 = & \underline{244} & 67 = & \underline{56} \\ \text{ten} & \text{five} & \text{eight} & \text{ten} \end{array}$$

Make for comparison a chart in base ten and another base.

| | b^4 | b^3 | b^2 | b^1 | b^0 |
|---------|--------|--------|--------|--------|--------|
| base 10 | 10^4 | 10^3 | 10^2 | 10^1 | 10^0 |
| 1056 | | 1 | 0 | 5 | 6 |
| base 5 | 5^4 | 5^3 | 5^2 | 5^1 | 5^0 |
| | 1 | 3 | 2 | 1 | 1 |

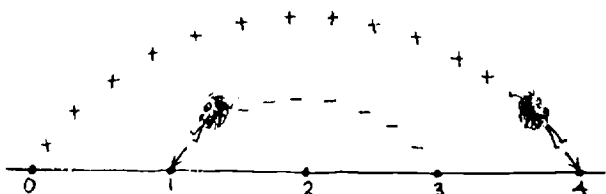
one thousand fifty-six =

$$\begin{array}{rcc} 1056 = 13211 \\ \text{ten} & & \text{five} \end{array}$$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--------------------------|--------------|
| <u>Numeration</u> | | |
| 7. HM Book 6, p. 1-3 | | |
| 8. HM Book 6, pp. 24, 184, 185 | HM Visuals 6 (17) | |
| 9. HM Book 6, pp. 25, 184, 185, 266 | HM Visuals 6 (17) | |
| 10. HM Book 6, pp. 29, 30 | | |
| 11. HM Book 6, pp. 23, 31, 197, 329 | | |

LEVEL G

ADDITION AND SUBTRACTION



Review of Level F Skills

1. Solves verbal (word) problems with skills learned to this point.

Teacher note: Use the five-step method, student's page 40.

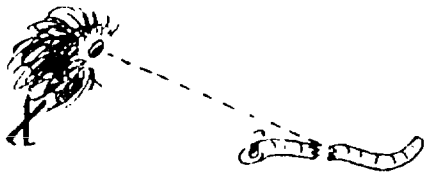
2. In-Depth.

Example

Addition and Subtraction

In one week, Tom earned \$5.80 for mowing lawns, \$2.50 for babysitting, and \$2.00 for helping his Dad wash the car. If he spent \$9.10 for baseball equipment, how much did he have left? \$1.20

MULTIPLICATION AND DIVISION



Review of Level F Skills

1. Rounds numbers for the purpose of estimating and checking products and quotients.

Multiplication and Division

Round each factor to the nearest 10 or 100, then estimate the product or the quotient.

$$348 \times 786 = \underline{300 \times 800 = 240,000}$$

$$1754 \div 31 = \underline{1800 \div 30 = 60}$$

Textual ResourcesRelated ResourcesNotesAddition and Subtraction

HM Book 6, pp. 14,
15, 32-39

1. HM Book 6, pp. 40, 41

HM Visuals 6 (5)
HM Masters 6 (3,
6, 7, 8)

2. HM Book 6, pp. 186, 187

Multiplication and Division

HM Book 6, pp. 14, 15,
42-47, 54-59, 66, 100,
110, 116, 180, 181

1. HM Book 6, pp. 60-62,
104, 105, 111-113

HM Visuals 6 (3-6)
HM Masters 6 (3, 9,
10, 12, 23, 25, 26,
28)
HM Visuals 6 (10)
HM Masters 6 (13, 14,
23-26)

LEVEL G

Multiplication and Division

2. Applies the concept that squaring a number and naming the square root are opposite (inverse) operations, e.g.
 $3^2 = 9$.
3. Multiplies a three or more digit numeral by a three digit number.
4. Uses the division algorithm with a three or more place divisor.
5. Solves word (verbal) problems with skills learned to this point.
6. Mixed Practice.
7. In-Depth.

Example

Multiplication and Division

The square root of 81 is 9,
so 9² is 81.

Multiply:

$$\begin{array}{r} 469 \\ \times 134 \\ \hline 62,846 \end{array}$$

Divide:

$$6017 \div 138 = \underline{43 \text{ R. } 83}$$

A moving van carried 14 boxes of books and 24 boxes of dishes. If each box weighed 25 pounds, how much did the books and dishes weigh?

$$(14 \times 24) \times 25 = \underline{8400 \text{ lbs.}}$$

Textual ResourcesMultiplication and Division

2. HM Book 6, pp. 122-124,
172, 274

3. HM Book 6, pp. 104, 105

4.

5. HM Book 6, pp. 48, 49,
63, 113-115, 136, 137,
178

6. HM Book 6, pp. 52, 53,
64, 65, 98, 117, 125,
141, 148, 179, 194, 211

7. HM Book 6, p. 67, 129

Related Resources

HM Masters 6 (30)

HM Visuals 6 (10)
HM Masters 6 (23, 24)

HM Masters 6 (15, 27)

HM Masters 6 (21, 26, 36,
36, 50)

Notes

LEVEL G

FRACTIONS



Review of Level F Skills

1. Adds or subtracts fractional numbers with the same denominator using the distributive property.
2. Adds or subtracts combinations of mixed numbers.
3. Applies the concept that multiplication and division are opposites.

Example

Fractions

Add or subtract.

$$\begin{aligned}\frac{2}{6} + \frac{1}{6} &= (2+1) \times \frac{1}{6} \\ &= 3 \times \frac{1}{6} \\ &= \frac{3}{6} \\ &= \frac{3 \div 3}{6 \div 3} = \frac{1}{2}\end{aligned}$$

$$\begin{aligned}\frac{2}{6} - \frac{1}{6} &= (2-1) \times \frac{1}{6} \\ &= 1 \times \frac{1}{6} \\ &= \frac{1}{6}\end{aligned}$$

Solve the following equations.

$$3\frac{1}{4} + 1\frac{1}{3} = \underline{4\frac{7}{12}}$$

$$\begin{aligned}3\frac{1}{4} - 1\frac{3}{4} &= 2 + \frac{(1-3)}{4} \\ &= 1 + \frac{(5-3)}{4} \\ &= 1 + \frac{2}{4} \\ &= 1\frac{1}{2}\end{aligned}$$

Solve the following equation.

$$\frac{1}{5} \times 15 = 15 \div 5 = \underline{3}$$

Textual Resources

Fractions

HM Book 6, pp. 198-208,
212, 213, 216, 219, 234,
234-236, 242

1. HM Book 6, p. 209

2. HM Book 6, pp. 214, 215,
220-224

3. HM Book 6, pp. 252, 253

Related Resources

HM Visuals 6 (18)
HM Masters 6 (41-46,
48, 51)

HM Visuals 6 (19)
HM Masters 6 (47, 49)

HM Visuals 6 (21)

Notes

LEVEL G

Fractions

4. Shows how the reciprocal may be used to replace division by multiplication.
5. Uses the multiplication algorithm with proper, improper, and mixed fractions having like and unlike denominators. Removes common factors from numerator and denominator.
6. Divides simple fractions, improper fractions and mixed fractions. Writes answers in lowest terms. Estimates answers.
7. Solves multiple step word problems with skills learned to this point.
8. Mixed Practice.
9. In-Depth.

Example

Fractions

Divide: reciprocal of $\frac{1}{2}$ is $\frac{2}{1}$.

$$\begin{aligned}\frac{4}{7} \div \frac{1}{2} &= \frac{4}{7} \times \frac{2}{1} \\ &= \frac{8}{7} \\ &= \underline{1\frac{1}{7}}\end{aligned}$$

Multiply.

$$4\frac{1}{7} \times \frac{2}{3} = \underline{2\frac{10}{21}}$$

Estimate answer then divide.

Reduce answer to lowest terms.

Estimate:

$$\frac{5}{8} \div \frac{1}{2} = \underline{1\frac{1}{4}}$$

There are 36 students in room A and 30 in room B. If $\frac{3}{4}$ of the students in room A go to music and $\frac{2}{5}$ of the students in room B go to the library, how many students will be left in the two rooms? 27 students

Textual ResourcesFractions

4. HM Book 6, pp. 254, 255,
258, 259
5. HM Book 6, pp. 240, 241,
243-245, 260, 261
6. HM Book 6, pp. 256-259,
261
7. HM Book 6, pp. 210, 225,
237, 248, 262
8. HM Book 6, pp. 230-233,
246, 247, 249, 264, 265,
285, 296, 317
9. HM Book 6, p. 267

Related Resources

- HM Visuals 6 (21)
HM Masters 6 (58, 59)
- HM Visuals 6 (20)
HM Masters 6 (52-57,
60)
- HM Visuals 6 (21)
HM Masters 6 (59, 60)
- HM Masters 6 (45)
- HM Masters 6 (61, 67)

Notes

LEVEL GDECIMALS

2.84



1. Makes a place value chart which shows place value positions of a decimal fraction.
2. Makes or completes a decimal place value chart using positive exponents. Numbers to 10. Uses fraction form in place of negative exponents.
3. Writes the decimal equivalent for any proper or improper fraction and vice versa.
4. Adds or subtracts numbers with whole number parts and decimals to the thousandths place. Addends need not have the same number of digits.
5. Multiplies a number in decimal form to thousandths by a whole number.
6. Multiplies a decimal number by a decimal number. (See four-step method on student's page 310).

ExampleDecimals

Show 3425.679 on a place value chart.

| thousands | hundreds | tens | ones | tenths | hundredths | thousandths |
|-----------|----------|------|------|--------|------------|-------------|
| 3 | 4 | 2 | 5 | 6 | 7 | 9 |

Finish labeling the columns of this place value chart using powers to 10. Then enter the following numbers in your chart.

4,794.563

12,952.64

| 10^4 | 10^3 | 10^2 | 10^1 | 10^0 | $\frac{1}{10}$ | $\frac{1}{10^2}$ | $\frac{1}{10^3}$ |
|--------|--------|--------|--------|--------|----------------|------------------|------------------|
| | 4 | 7 | 9 | 4 | 5 | 6 | 3 |
| 1 | 2 | 9 | 5 | 2 | 6 | 4 | |

Write the decimal numerals equivalent to the given fractions.

$$\frac{25}{4} = \underline{6.25}$$

$$\frac{7}{8} = \underline{.875}$$

Add or subtract as indicated:

$$37.6 + 3.07 + 19.125 = \underline{59.795}$$

$$2867.05 - 791.3 = \underline{2075.75}$$

Multiply:

$$6791.04 \times 8 = \underline{54,328.32}$$

Multiply:

$$347.21 \times 6.3 = \underline{2187.42}$$

Textual ResourcesDecimals

1. HM Book 6, pp. 300, 301

2. HM Book 6, pp. 17, 18,
298

3. HM Book 6, pp. 299-301

4. HM Book 6, pp. 302-304

5. HM Book 6, pp. 306, 307

6. HM Book 6, pp. 308-310

Related ResourcesNotes

HM Masters 6 (68)

HM Masters 6 (69)

HM Visuals 6 (24)
HM Masters 6 (70)

HM Visuals 6 (24)
HM Masters 6 (71)

LEVEL G

Decimals

7. Divides whole or decimal numbers by whole or decimal numbers. Annexes zeros to dividend when necessary.
8. Converts decimal and common fractions to per cent and vice versa.
9. Solves addition and subtraction of fractional numbers in per cent form.
10. Names products involving per cents. Use decimal or fraction form.
11. Solves word problems using skills learned to this point.
12. Mixed Practice.

Example

Decimals

Divide:

$$678.13 \div 2.1 = \underline{322.9\frac{1}{2}}$$

Name the per cent as a decimal and the decimal as a per cent.

$$\begin{array}{l} 71\% = \underline{.71} \\ .31 = \underline{31\%} \end{array}$$

Add or subtract as indicated:

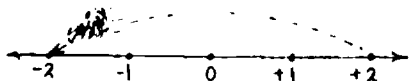
$$\begin{array}{l} 76\% + 17\% = \underline{93\%} \\ 85\% - 16\% = \underline{69\%} \end{array}$$

Name the products:

$$\begin{array}{l} 20\% \text{ of } 100 = \underline{20} \\ \frac{1}{5} \text{ of } 100 = \underline{20} \end{array}$$

Mrs. Thomas bought $2\frac{1}{2}$ yards of fabric at \$2.50 a yard and $1\frac{1}{4}$ yards of fabric at \$1.84 a yard. How much did she pay for all the fabric? \$8.55

INTEGERS

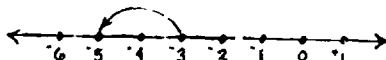


1. Locates positive and negative integers on a number line or thermometer.
2. Adds two negative integers with the use of a number line.

Integers

Solve the equation.

$$-3 + -2 = \underline{-5}$$



| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|-------------------------------------|--|--------------|
| <u>Decimals</u> | | |
| 7. HM Book 6, pp. 311-315 | HM Visuals 6 (25) HM Masters 6 (72, 73) | |
| 8. HM Book 6, pp. 318, 320, 321 | HM Visuals 6 (26) HM Masters 6 (75) | |
| 9. HM Book 6, p. 319 | HM Visuals 6 (26) HM Masters 6 (75) | |
| 10. HM Book 6, pp. 322-325 | HM Visuals 6 (26) HM Masters 6 (76, 80) | |
| 11. HM Book 6, pp. 305, 326 | HM Masters 6 (35, 69) | |
| 12. HM Book 6, pp. 316, 326- 328 | HM Masters 6 (74) | |

Integers

- | | |
|-------------------------------|--|
| 1. HM Book 6, pp. 332, 333 | |
| 2. HM Book 6, pp. 334, 335 | |

LEVEL G

Integers

3. Adds two negative integers with the use of a number line.
4. Subtracts a negative integer from a negative integer.
5. Subtracts a negative integer from a positive integer or a positive integer from a negative integer.
- * 6. Solves one and two-step word problems with positive and negative numbers.
7. In-Depth.

Example

Integers

Solve the equation.

$$-2 + 3 = \underline{+1}$$

Solve the equation.

$$-5 - -2 = \underline{-3}$$

Solve the equation.

$$5 - (-2) = \underline{+7}$$

$$2 - 5 = \underline{-7}$$

In Alaska it was 7° above zero on December 29. During the night the temperature dropped 15° . What was the temperature then? 8° below zero

GEOMETRY



Review of Level F Skills

1. Uses metric units as related to each other by powers of 10 to measure length, weight and capacity.
2. Uses equations to name the number of units in the perimeter or surface area of a particular region.

Geometry

Ten cubic centimeters of water weighs 10 grams.

Find the area of a circle with radius 1 feet.

$$A = \pi \times r^2$$

$$A = 3.14 \times 1^2 = \underline{3.14 \text{ sq. ft.}}$$

Textual ResourcesRelated ResourcesNotesIntegers

3. HM Book 6, pp. 336,
337

HM Masters 6 (77)

4. HM Book 6, pp. 338, 339
339

5. HM Book 6, pp. 338,
339

HM Masters 6 (78, 79)

6. HM Book 6, pp. 332,
333

7. HM Book 6, pp. 340,
341

HM Masters 6 (80)

Geometry

HM Book 6, pp. 26,
68-74, 268

HM Visuals 6 (7)
HM Masters 6 (16, 17)

1.

2. HM Book 6, pp. 78, 79,
83, 92, 93, 108, 109,
142, 143, 269, 271-275

HM Visuals 6 (9)
HM Masters 6 (18, 19,
22, 62, 63)

LEVEL G

Geometry

3. Uses equations to find the volume of closed surfaces.
4. Converts metric to English weight measures and vice versa.
5. Weighs objects in grams and kilograms. Converts between grams and kilograms.
6. Identifies vertices, edges, and faces on models of cubes, triangular prisms, rectangular prisms, pentagons and hexagons.
7. Uses the concept of points, curves and surfaces to examine properties of planes.
8. Identifies and draws the following: perpendicular bisector, triangles with bisected angles, congruent triangles, ellipse, line segments, polygons, regular hexagon, rhombus, linear pairs, acute and obtuse angles, isosceles and equilateral triangles.
9. Solves word problems using skills learned to this point.

Example

Geometry

Find the volume of a rectangle 4 inches wide, 8 inches high and 6 inches high?

$$4 \times 8 \times 6 = \underline{192 \text{ cu. in.}}$$

Write the metric equivalents for the following weights.

$$5 \text{ pounds} = \underline{2.2 \text{ kg.}}$$

$$28.35 \text{ grams} = \underline{1 \text{ ounce}}$$

Weigh these objects and write their weights in grams and/or kilograms.

Look at a triangular prism.

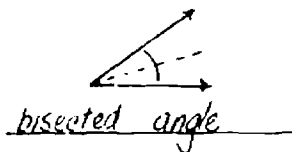
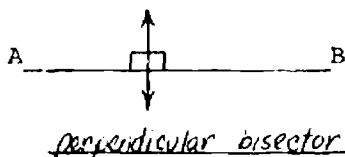
List the number of vertices 6.

List the number of faces 5.

List the number of edges 9.

The intersection of 2 planes is a line.

Identify the following:



A large box, used for storing play ground equipment, is 6 ft., 4 ft. wide and 3 ft. high. Find the area of the outside surface. Find the volume.

$$A = \underline{108 \text{ sq. ft.}}$$

$$V = \underline{72 \text{ cu. ft.}}$$

Textual ResourcesGeometry

3. HM Book 6, pp. 91-93,
109, 142, 143, 270,
271, 275
4. HM Book 6, p. 27
5. HM Book 6, p. 27
6. HM Book 6, pp. 38, 89
7. HM Book 6, pp. 68, 69,
86, 87, 90, 290, 291
8. HM Book 6, pp. 75, 76,
80-82, 84, 277, 280-283,
291
9. HM Book 6, pp. 85,
269, 275, 288, 289, 326

Related Resources

- HM Visuals 6 (9)
HM Masters 6 (22,
62, 63)
- HM Masters 6 (5)
- HM Visuals 6 (9)
HM Masters 6 ((21)
- HM Visuals 6 (8, 23)
HM Masters 6 (20,
64, 65)
- HM Masters 6 (63, 66)

Notes

LEVEL G

Geometry

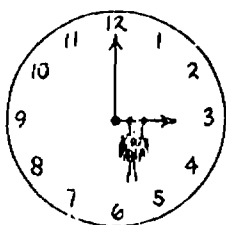
10. Mixed Practice.

11. In-Depth.

Example

Geometry

TIME



1. Works problems composed of time units: years, months, weeks, days, hours, minutes and seconds.
2. In-Depth.
Writes or selects name for very small and very large units of time and vice versa (include: nano-second, microsecond, millisecond, millenium, eon).

Time

John was born on August 14, 1952. How old was he on July 4, 1970. 17 yrs. 10 mo. 16 da.

SPECIAL TOPICS

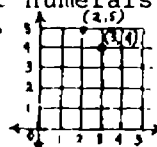


Review of Level F Skills

1. Locates points on a coordinate plane. Graphs ordered pairs. and function equations. Uses all quadrants.

Special Topics

Graph the sets of numerals on the number plane.
(2, 5) (3, 4)



| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|--|--------------------------|--------------|
| <u>Geometry</u> | | |
| 10. HM Book 6, pp. 77, 96, 97, 128, 278, 279, 294, 295 | HM Masters | |
| 11. HM Book 6, pp. 99, 284, 236, 287, 297 | HM Masters 6 (66) | |

Time

1.

2.

Special Topics

- | | |
|--|--|
| 1. HM Book 6, pp. 94, 95, 144, 145, 292, 293 | HM Visuals 6 (13) HM Masters 6 (34) |
|--|--|

LEVEL G

Special Topics

2. Uses Venn (set) diagrams to picture the relationship between sets.
3. Uses fractional numbers to state probabilities.
4. Applies certain assumptions or definitions to decide whether a statement is true or false.
5. Writes number sentences, including formulas and rates, to describe set relationship and operations.
6. Collects data by observation or experimentation which may be analyzed or interpreted using statistical methods.
7. Mixed Practice.
8. In-Depth.

Example

Special Topics

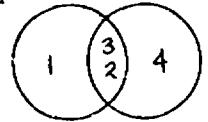
Draw diagrams to show $A \cup B$ and $A \cap B$.

$$A = 1, 2, 3$$

$$B = 3, 2, 4$$

$$A \cup B =$$

$$A \cap B =$$



If you choose any letter of the alphabet, what is the chance of choosing a letter that reaches below the base line. (26 letters in the alphabet) $\frac{7}{26}$

Write a statement to disagree with the following: All humans walk on two feet.

A new born baby does not walk on two feet.

Find the volume of a cylinder using the formula $V = (\pi \times r^2) \times h$. Diameter is 10" Height is 7"
 $V =$ 549.5

John's batting averages for each of his last five years were: 240, 264, 211, 240, 340. What is mean, median and mode of his scores?

mode = 240
median = 240
mean = 259

Textual ResourcesSpecial Topics

2. HM Book 6, pp. 4, 5
3. HM Book 6, pp. 226-229,
250, 251
4. HM Book 6, pp. 150-159,
161
5. HM Book 6, pp. 50, 51,
83, 106, 107, 142, 143,
270, 274, 295
6. HM Book 6, pp. 118-121,
140, 146, 147
7. HM Book 6, pp. 126, '27
8. HM Book 6, p. 163

Related Resources

- HM Visuals 6 (1)
HM Masters 6 (1)
- HM Visuals 6 (15)
HM Masters 6 (36)
- HM Visuals 6 (22)
HM Masters 6 (11, 33)
- HM Visuals 6 (11)
HM Masters 6 (29)

Notes

LEVEL G
TESTS
and
ANSWER KEYS



LEVEL G

Name _____

NUMERATION

Date _____

Skill 1

Write in words, numerals for each number.

1. 517,096,003 _____

2. 9,967,205,004 _____

Write in digit form.

3. six hundred billion, sixty-four thousand _____

4. seven hundred ninety-six billion, four hundred million, one hundred seven thousand, three hundred twenty-two.

5. nine hundred thousand, seventy-seven. _____

LEVEL G

Name _____

NUMERATION

Date _____

Skill 2, 3

Match the following phrases by placing the number of the phrase on the line before the correst number sentence.

- (1) false number sentence
- (2) true number sentence
- (3) open number sentence
- (4) neither true nor false open sentence
- (5) solution set
- (6) replacement set

_____ $x = 69$

_____ $96 = 69 + 27$

_____ $229 = 119 + 109$

_____ $x = 69 + 27$

_____ $967 > 784$

LEVEL G

Name _____

NUMERATION

Date _____

Skill 4

Circle the numerals that are divisible by 8.

1. 73, 91, 144, 215, 396, 688, 867

Check this problem by "casting out nines".

$$\begin{array}{r} 48729 \\ \times 15 \\ \hline 730935 \end{array} = \underline{\hspace{2cm}}$$

LEVEL G

Name _____

NUMERATION

Date _____

Skill 6, 7

Solve the clock equations in clock arithmetic.

1. $4 + 7 \stackrel{12}{=} a$ _____

2. $3 + 6 \stackrel{12}{=} b$ _____

3. $10 - 8 \stackrel{12}{=} c$ _____

4. $4 + 3 \stackrel{7}{=} d$ _____

5. $2 + (5+5) \stackrel{7}{=} e$ _____

If you were working with whole numbers would your answer on the problems be the same? Answer yes or no.

LEVEL G

Name _____

NUMERATION

Date _____

Skill 5

Give the prime factorization of the following and list the different prime factors.

| | <u>Factorization</u> | <u>Prime factors</u> |
|----------|----------------------|----------------------|
| 1. 64 = | _____ | _____ |
| 2. 378 = | _____ | _____ |
| 3. 279 = | _____ | _____ |
| 4. 84 = | _____ | _____ |
| 5. 72 = | _____ | _____ |

Determine if the following numbers are prime or composite.

| | <u>Prime</u> | <u>Composite</u> |
|--------|--------------|------------------|
| 1. 97 | _____ | _____ |
| 2. 231 | _____ | _____ |
| 3. 873 | _____ | _____ |
| 4. 457 | _____ | _____ |
| 5. 971 | _____ | _____ |

LEVEL G

Name _____

NUMERATION

Date _____

Skill 8

1. Circle each set of numerals that could appear in a base 2 system.

6, 10, 1, 30, 111, 1001

2. Name the (a) place value, (b) face value, and (c) the total value of the digit 6 in each of the following numerals.

416 (a) _____
 eight (b) _____
 (c) _____

1067 (a) _____
 eight (b) _____
 (c) _____

3. Write the numerals that you would use in base twelve.

Level G

Name _____

NUMERATION

Date _____

Skill 9

1. Convert each of the following numerals to the designated base.

303 _____
 five ten

311 _____
 ten five

267 _____
 ten eight

267 _____
 eight ten

1001 _____
 two ten

2. Compare the place value of 12,347 in base ten and base eight.

| | | | | | | | |
|--------------|--|--|--------|---------|--------|--------|--------|
| 12347 ten | | | base 4 | base 10 | base 2 | base 1 | base 8 |
| | | | ten | ten | ten | ten | ten |
| | | | eight | eight | eight | eight | eight |

LEVEL C

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1

Solve and label.

1. At the school cake sale Jack collected \$9.50, Phil collected \$12.75, Glen collected \$17.25, and Harry collected \$8.00. How much money did the boys collect all together?

2. There was \$6.75 in the class treasury when Steve was elected treasurer. Steve received \$4.85 dues, and paid out \$2.49 for aquarium equipment, and \$1.32 for stationery and stamps. How much money remained in the treasury?

3. In a Chinese checkers game, Jim scored 25, 35, and 15 points. Betty scored 10, 14, and 23. Who won the game and by how much?

4. One orange grove contained 328 trees, another 589, another 232 and another 153 trees. How many trees were in the four groves.

5. An orange tree produced 10,107 oranges and another tree 7,754 oranges. How many more oranges were produced by the first tree than by the second tree?

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1, 3, 4

1. Round the factors to the hundreds place and estimate the product.
Work out the problems and compare your answer with the estimate.

$$\begin{array}{r} 367 \text{ Rounded number } \underline{\hspace{2cm}} \\ \times 780 \text{ Rounded number } \underline{\hspace{2cm}} \\ \hline \end{array}$$

answer

Estimated answer

2.

$$\begin{array}{r} 549 \text{ Rounded number } \underline{\hspace{2cm}} \\ \times 704 \text{ Rounded number } \underline{\hspace{2cm}} \\ \hline \end{array}$$

answer

Estimated answer

Round the divisor to hundreds, dividend to thousands, estimate the quotient, then work the problem.

3.

$$704 \overline{) 63271} \qquad \qquad \qquad \underline{\hspace{2cm}}$$

4.

$$639 \overline{) 128570} \qquad \qquad \qquad \underline{\hspace{2cm}}$$

5.

$$387 \overline{) 37762} \qquad \qquad \qquad \underline{\hspace{2cm}}$$

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2

Complete the number sentences.

1. $19^2 = 361$, so $\sqrt{361} =$ _____

2. $85^2 = 7225$, so $\sqrt{7225} =$ _____

Name the square roots.

3. $\sqrt{121} =$ _____

4. $\sqrt{196} =$ _____

5. $\sqrt{676} =$ _____

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5

Solve and label.

1. Mr. Maxwell sold 2957 bushels of corn at \$.95 a bushel. How much did he receive for the corn?

2. Mr. Maxwell raised the corn on 60 acres of land. What was the average yield per acre?

3. The P.T.A. sold school pictures at \$1.50 per package. They sold 619 packages. The profit from this sale was \$123.80. How much profit did they make on each package?

4. If the Bennett Causeway toll booth collects approximately \$19.35 an hour, how much will it collect in a week?

5. Les and Tom helped to deliver 329 baskets of fruit. Each basket weighed 107 lbs. What was the total weight of the 329 baskets that Les and Tom delivered?

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 1

Using the distributive property find the sums or differences. State the answer in lowest terms.

1. $2/3 + 3/4 = \underline{\hspace{1cm}}/12 + \underline{\hspace{1cm}}/12 = (\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times \underline{\hspace{1cm}}/12 = \underline{\hspace{1cm}}$

2. $5/5 - 2/3 = \underline{\hspace{1cm}}/3 - \underline{\hspace{1cm}}/3 = (\underline{\hspace{1cm}} - \underline{\hspace{1cm}}) \times \underline{\hspace{1cm}}/3 = \underline{\hspace{1cm}}$

3. $3/7 + 1/2 = \underline{\hspace{1cm}}/14 + \underline{\hspace{1cm}}/14 = (\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times \underline{\hspace{1cm}}/14 = \underline{\hspace{1cm}}/14$

4. $6/8 - 2/4 = \underline{\hspace{1cm}}/8 - \underline{\hspace{1cm}}/8 = (\underline{\hspace{1cm}} - \underline{\hspace{1cm}}) \times \underline{\hspace{1cm}}/8 = \underline{\hspace{1cm}}/8$

5. $3/5 + 2/10 = \underline{\hspace{1cm}}/10 + \underline{\hspace{1cm}}/10 = (\underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times \underline{\hspace{1cm}}/10 = \underline{\hspace{1cm}}/10$

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 2

Solve the following problems. Show the answer in simplest form.

1. $6 \frac{2}{3} + 1 \frac{1}{4} + 1 \frac{1}{2} = \underline{\hspace{2cm}}$

2. $3 \frac{2}{11} + 3 \frac{1}{22} = \underline{\hspace{2cm}}$

3. $4 \frac{3}{8} - 2 \frac{1}{16} = \underline{\hspace{2cm}}$

4. $9 \frac{3}{4} - 2 \frac{1}{3} = \underline{\hspace{2cm}}$

5. $6 \frac{1}{4} - 3 \frac{1}{2} + 2 \frac{1}{8} = \underline{\hspace{2cm}}$

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 3, 4

Solve the following equations

1. $(9 \times 8) \div 8 = 9 \times (8 \div \underline{\quad})$
 $= 9 \times \underline{\quad} = \underline{\quad}$

2. $1/5 \times 35 = 35 \div \underline{\quad} = \underline{\quad}$

3. Dividing by $1/7$ is the same as _____ by 7.

4. Dividing by 4 is the same as multiplying by its reciprocal _____.

5. The product of $1/9$ and 9 is _____.

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 5

Remove common factors.

1. $1/8 \times 32/9 = \underline{\quad}$

2. $14/15 \times 4/42 = \underline{\quad}$

3. $10 \frac{1}{2} \times 2/55 = \underline{\quad}$

4. $7/8 \times 12/14 = \underline{\quad}$

5. $1 \frac{1}{5} \times 2 \frac{3}{20} = \underline{\quad}$

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 6

Divide. Show estimated answer, then correct answer. Always reduce to the lowest terms.

1. $7/6 \div 4/9 =$ _____ estimate _____ answer

2. $13/4 \div 7/9 =$ _____ estimate _____ answer

3. $6/8 \div 5/7 =$ _____ estimate _____ answer

4. $2 \frac{3}{4} \div 1 \frac{6}{7} =$ _____ estimate _____ answer

5. $\frac{1/2}{5/6} =$ _____ estimate _____ answer

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 7

Solve and label.

1. The sixth grade girls bought $1\frac{1}{2}$ yards of yellow material and $\frac{3}{4}$ yards of red material to decorate the bulletin board. They needed $3\frac{1}{2}$ yards to do the job. Would the girls need to buy more material? If so, how much more?
1. _____
2. Doug caught a fish that weighed $3\frac{3}{4}$ pounds and Tommy caught a fish that weighed $2\frac{1}{8}$ pounds. What was the difference in weight between the two fish? How much did the catch weigh all together?
2. _____
3. On a three day camping trip the boys walked $2\frac{1}{3}$ miles the first day, 2 miles the second day, and $3\frac{2}{3}$ miles the last day. What was the average mileage per day?
3. _____
4. Ed uses $1\frac{1}{3}$ yards of string for each kite he makes. If he makes five kites, how many yards of string would he need? If he had twelve yards of string, how many kites could he make?
4. _____
5. The sixth grade boys played $\frac{5}{6}$ of an hour on the playground. They spent $6\frac{3}{5}$ of the time throwing basketball goals. For how long did they throw goals?
5. _____

Name _____

Date _____

Finish labeling the columns of this place value chart using powers of ten. Use fraction form in place of negative exponents. Then complete the chart.

[illegible]

LEVEL G

Name _____

DECIMALS

Date _____

Skill 3

Write the decimal numerals equivalent to the given fractions.

1. $4/15 =$ _____

2. $7/11 =$ _____

3. $25/4 =$ _____

4. $9/2 =$ _____

Write the fraction equivalent to the given decimal numerals.

5. $.86 =$ _____

6. $.97 =$ _____

7. $1.25 =$ _____

8. $.025 =$ _____

9. $6.66 \frac{2}{3} =$ _____

10. $.75 =$ _____

LEVEL G

Name _____

DECIMALS

Date _____

Skill 4

Solve these equations.

1. $.65 + .86 =$ _____

2. $8.46 - 4.5 =$ _____

3. $4.37 + 26.1 + .38 + 4.8 + .26 =$ _____

4. $57.2 - 2.08 =$ _____

5. $62.3 + 31.9 - 34.7 =$ _____

LEVEL G

DECIMALS

Skill 5, 6

Name _____

Date _____

Solve these equations.

1. $416.1 \times 18 =$ _____

2. $3024.03 \times 53 =$ _____

3. $42.312 \times 38 =$ _____

4. $73.17 \times 1.6 =$ _____

5. $96.7 \times .8 =$ _____

LEVEL G

DECIMALS

Skill 7

Name _____

Date _____

1. $.6 \overline{)243.6}$

2. $.5 \overline{)6.75}$

3. $7 \overline{)6.552}$

4. $5 \overline{).4160}$

5. $1.23 \overline{)261.99}$

LEVEL G

Name _____

DECIMALS

Date _____

Skill 8, 9, 10

Name the decimals as per cents.

1. .75 _____

2. .08 _____

Name the per cents as decimal fractions.

3. 9% _____

4. 100% _____

Convert the fractions to per cent and the per cent to fractions.

5. $13/20 =$ _____

6. 4% = _____

Name the sums or differences.

7. $32\% + 67\% =$ _____%

8. $57\% - 48\% =$ _____%

Solve.

9. 2% of 50 = _____

10. 86% of 53 = _____

LEVEL G

Name _____

DECIMALS

Date _____

Skill 11

Solve and label.

1. Mr. Browning works for a corporation that gave a 6% raise this year. If his salary last year was \$7,200, what is his gross monthly pay this year?

1. _____

2. Muriel rode down the Missouri Valley Trail. It is 10.7 miles to High Point, 43.16 miles to Evergreen, 79.016 miles to Terrace, and 5.4 miles on to the river. How long is the Missouri Valley Trail?

2. _____

3. Jerry caught 17 fish. The average weight was 1.37 pounds. What was the total weight of the fish? If he sold his catch at 39¢ per pound, how much did he make? Round your answer to the nearest hundredth.

3. _____

4. Mr. Pike bought a shirt which had been marked down 25%. It originally sold for \$8.96. How much did he pay for the shirt?

4. _____

5. What is the volume of a square box which has a measurement of 3.9 inches on a side?

5. _____

LEVEL G

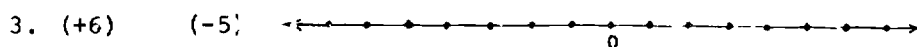
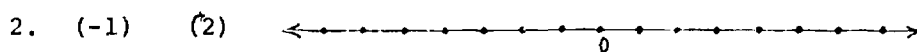
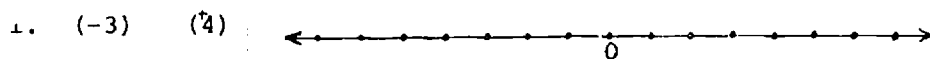
Name _____

INTEGERS

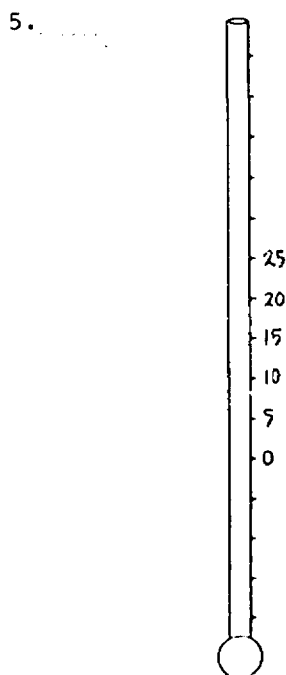
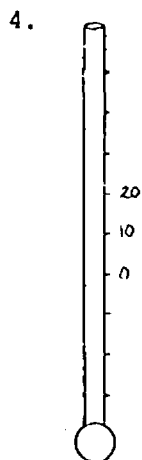
Date _____

Skill 1

Locate the following points on the number lines:



Complete the following thermometers:



LEVEL G

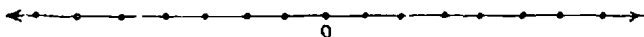
INTEGERS

Skill 2

Name _____

Date _____

Add.



1. $(-4) + (-2) =$ _____

2. $(-3) + (-1) =$ _____

3. $(-1) + (-5) =$ _____

4. $-5 + (-15) =$ _____

5. $-15 + (-4) =$ _____

LEVEL G

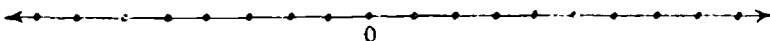
INTEGERS

Skill 3

Name _____

Date _____

Add.



1. $+3 + (-2) =$ _____

2. $+1 + (-4) =$ _____

3. $(-3) + (+2) =$ _____

4. $+30 + (-20) =$ _____

5. $-53 + (+60) =$ _____

LEVEL G

Name _____

INTEGERS

Date _____

Skill 4

Subtract.

1. $+4 - (+1) =$ _____

2. $+4 - (+7) =$ _____

3. $(-5) - (-1) =$ _____

4. $-9 - (-2) =$ _____

5. $+1 - (+2) =$ _____

LEVEL G

Name _____

INTEGERS

Date _____

Skill 5

Subtract.

1. $+1 - (-4) =$ _____

2. $+1 - (-1) =$ _____

3. $-5 - (+1) =$ _____

4. $-2 - (+3) =$ _____

5. $-5 - (+3) =$ _____

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 1

Relate the following metric units to each other by powers of 10.

1. 10^3 meters = _____ kilometer

2. 2 cubic centimeters = _____ cubic millimeters

3. 30 grams = _____ decagrams

4. 70 decaliters = _____ liters

5. 3 square centimeters = _____ square millimeters

LEVEL G

Name _____

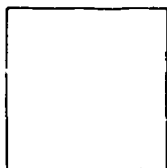
GEOMETRY

Date _____

Skill 2, 3

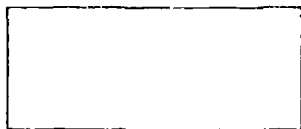
Solve and label.

1. Use an equation to find the perimeter of the square.



7 in.

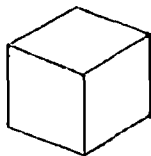
2. Use an equation to find the perimeter of the rectangle.



3.5'

6.5'

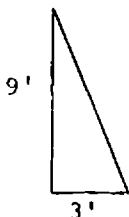
3. Use an equation to find the surface area of the cube.



3 cm.

4. How many cubic feet in a rectangular box 3 by 9 by 12 feet?

5. Find the area of the right triangle.



LEVEL G

Name _____

GEOMETRY

Date _____

Skill 4

Write the metric equivalents for the following weights:

1 gram = 0.035 avoir du pois ounce

1 avoir du pois ounce = 28.350 grams

1 kilogram = 2.2 avoir du pois pounds

1 kilogram = 1000 grams

1. 516 kg. = _____ grams

2. $8\frac{1}{2}$ oz. = _____ grams

3. 6 oz. = _____ kilograms

4. 16 grams = _____ avoir du pois ounces

5. 5 kilograms = _____ ounces

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 5

Solve these problems and label.

1. Which is the better buy, a kilogram of potatoes for 53¢ or 2 pounds of potatoes for 53¢?

2. Alice weighs $93\frac{1}{2}$ pounds. Approximately how many kilograms does she weigh?

3. A well-known brand of tomato soup has the inscription "10½ oz.; 2.98 grams" on the label. From this information, determine about how many grams are equivalent to 1 ounce.

4. Anne bought 1,589 grams of hamburger meat. How many pounds was this?

5. A cat weighs 14 pounds. How many grams? _____

How many kilograms? _____

LEVEL C

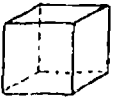
Name _____

GEOMETRY

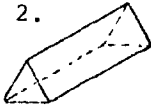
Date _____

Skill 6

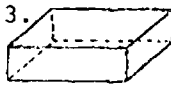
1.



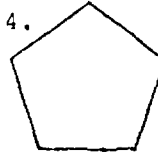
2.



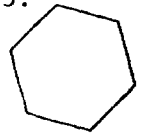
3.



4.



5.



Study the surfaces above, then complete the table.

| Shape | Number of faces | Number of vertices | Number of edges |
|----------------------|--------------------|-----------------------|--------------------|
| 1. Cube | | | |
| 2. Triangular prism | | | |
| 3. Rectangular prism | | | |
| 4. Pentagon | | | |
| 5. Hexagon | | | |

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 7

The following list concerns the properties of planes.

Check the true statements.

1. A plane is the interior of a closed curve. _____
2. A plane extends infinitely in all directions. _____
3. A plane is a flat surface. _____
4. Three points in a line determine a plane. _____
5. Planes are particular sets of points. _____

LEVEL G

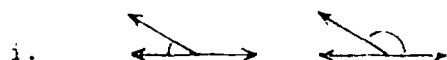
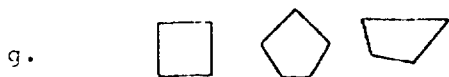
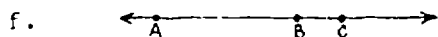
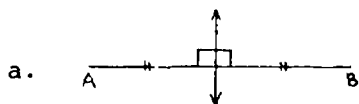
GEOMETRY

Skill 8

Name _____

Date _____

Match the following figures with the best answer. Use each letter only once.



_____ 1. Line segments

_____ 2. Ellipse

_____ 3. Congruent triangles

_____ 4. Polygons

_____ 5. Regular hexagon

_____ 6. Angles

_____ 7. Triangles with bisected angles

_____ 8. Perpendicular bisector

_____ 9. Simple curve

_____ 10. Linear pairs

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 9

Solve and label.

1. One gallon of paint will cover 180 sq. ft. How many gallons of paint will it take to paint the walls of a room which is 10 ft. wide by 14 ft. long by 8 ft. high?

2. John wants to build a square box which will hold 1000 centimeter cubes. What size box will he need to build?

3. A playground has a length of 300 feet and a width of 250 feet. How many yards of fence will it take to fence the playground?

4. A science experiment called for 8 fluid drams of alcohol. John bought one pint. How many times could this experiment be tried from the pint of alcohol? (8 fl. drams = 1 oz.)

5. If the ratio of the telephone pole to its shadow is 6:5, how high would the telephone pole be if it cast a 30' shadow?

LEVEL G

Name _____

TIME

Date _____

Skill 1

Name the sums or differences in the following problems.

$$\begin{array}{r} 1. \quad 1 \text{ yr.} \quad 10 \text{ mo.} \quad 2 \text{ wk.} \\ + 4 \text{ yr.} \quad 6 \text{ mo.} \quad 1 \text{ wk.} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 4 \text{ hr.} \quad 10 \text{ min.} \\ - 3 \text{ hr.} \quad 40 \text{ min.} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 4 \text{ min.} \quad 20 \text{ sec.} \\ 5 \text{ min.} \quad 30 \text{ sec.} \\ + 9 \text{ min.} \quad 40 \text{ sec.} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 12 \text{ yr.} \quad 8 \text{ mo.} \\ + 24 \text{ yr.} \quad 5 \text{ mo.} \\ \hline \end{array}$$

5. Connie's birth date is June 11, 1958. How old was Connie at the time of the achievement test given April 15, 1970?

years months days

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 1

Each student will need a sheet of $\frac{1}{4}$ inch graph paper.

Find and label the coordinate points on the coordinate plane.

| | | | |
|----|-----|----|---------|
| A. | 2, | 8 | (2,8) |
| B. | 5, | -1 | (5,-1) |
| C. | -3, | 4 | (-3,4) |
| D. | -6, | -5 | (-6,-5) |
| E. | 8, | 2 | (8,2) |

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 2

1. Draw a Venn diagram to show the union of $S = \{\text{Jim, Ann, Ken}\}$ and $A = \{\text{Bob, Ken, Cindy}\}$.

2. True or False.

In the above diagram $S \cap A = \text{Ken}$ _____

3. Write the equation for the following, showing intersection of sets.

$A = \{\text{Sept., Oct., Nov.}\}$

$R = \{\text{Oct., Nov., Dec., Jan.}\}$ _____

4. Draw a Venn diagram for the following:

$$\{P, D, Q\} \cup \{P, D, Q\} = \{P, D, Q\}$$

5. True or False.

The intersection set of disjoint sets is the empty set.

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 3

There are three marbles in a box. One is red, one is white, and one is blue. Below is a model listing all the possible orders in which they can be removed from the box.

RWB
RBW

BRW
BWR

WBR
WRB

Use this model to answer the following questions.

What is the probability that:

1. the first marble will be red? _____
2. the first marble will be red or white but not blue? _____
3. if the first marble is blue, the second marble will be white? _____
4. if the first marble is white, the second marble will also be white? _____
5. the first marble will be blue, the second red and the third white? _____

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 4

Check the true statements, leave the false statements blank.

1. All squares are rectangles. _____
2. No one digit numeral is a fraction. _____
3. All numbers are prime or composite. _____
4. If it is a number, then it is not a numeral. _____
5. If it is a quadrilateral, then it must be a polygon or a triangle. _____
6. If it is a positive integer between 1 and 10, then it must have its opposite negative integer between - 1 and -10. _____
7. If an equation is a math sentence with an = sign between two expressions which name the same number, then $6 + x = 105$ is not an equation. _____

LEVEL G

Name _____

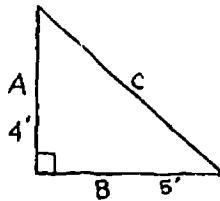
SPECIAL TOPICS

Date _____

Skill 5

Write a closed number sentence for the following problems.

1. Length of side A.



2. Volume of a box 9 inches by 6 inches by 4 inches.

3. Circumference of a circle with a radius of 2 feet.

4. The volume of a cylinder with a diameter of 4 inches and a height of 8 inches. Use $\pi = 3.14$

5. A car travels 480 miles in 8 hours. What was the average speed per hour?

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 6

Each student will need a sheet of paper.
Draw a bar graph for each set of data.

1.

| Liquid | Water | Oil | Gasoline | Sea Water | Kerosene |
|-------------------|-------|-------|----------|-----------|----------|
| Pounds per gallon | 8.33 | 7.497 | 5.664 | 8.58 | 6.664 |

2.

| Material | Glass | Balsa Wood | Gold | Iron | Lead |
|-----------------------|--------|------------|--------|--------|-------|
| Pounds per cubic foot | 162.24 | 8.11 | 1203.4 | 486.72 | 705.1 |

3.-4. Name the averages for the data in exercises 1 and 2 rounded to the nearest tenth.

3. _____

4. _____

5. Estimate the number of gallons of water needed to weigh about the same as a cubic foot of gold.

5. _____

LEVEL G

Name _____

NUMERATION

Date _____

Skill 1

Write in words, numerals for each number.

1. 517,096,003 Five hundred seventeen million,
ninety-six thousand, three
2. 9,967,205,004 nine billion, nine hundred
sixty-seven million, two hundred five thousand
four

Write in digit form.

3. six hundred billion, sixty-four thousand 600,000,064,000
4. seven hundred ninety-six billion, four hundred million, one
hundred seven thousand, three hundred twenty-two.
796,400,107,322
5. nine hundred thousand, seventy-seven. 900,077

LEVEL G

Name _____

NUMERATION

Date _____

Skill 2, 3

Match the following phrases by placing the number of the phrase on the line before the correct number sentence.

- (1) false number sentence
(2) true number sentence
(3) open number sentence
(4) neither true nor false open sentence
(5) solution set
(6) replacement set

- 4 $x = 69$
- 5 $96 = 69 + 27$
- 1 $229 = 119 + 109$
- 3 $x = 69 + 27$
- 2 $987 > 784$

LEVEL G

Name _____

NUMERATION

Date _____

Skill 4

Circle the numerals that are divisible by 8.

1. 73, 91, (144) 215, 396, (688) 867

Check this problem by "casting out nines".

$$\begin{array}{r} 48729 \\ \times 15 \\ \hline 730935 \end{array} = \begin{array}{r} 3 \\ \times 6 \\ \hline 0 \end{array} \quad \begin{array}{l} 3 \times 6 = 18 \quad 9 = 0 \\ 0 = 0 \end{array}$$

LEVEL G

Name _____

NUMERATION

Date _____

Skill 6, 7

Solve the clock equations in clock arithmetic.

1. $4 + 7 \stackrel{12}{=} a$ 11

2. $3 + 6 \stackrel{12}{=} b$ 6

3. $10 - 8 \stackrel{12}{=} c$ 2

4. $4 + 3 \stackrel{7}{=} d$ 0

5. $2 + (5+5) \stackrel{7}{=} e$ 5

If you were working with whole numbers would your answer on the problems be the same? Answer yes or no.

No

LEVEL G

Name _____

NUMERATION

Date _____

Skill 5

Give the prime factorization of the following and list the different prime factors.

| | <u>Factorization</u> | <u>Prime factors</u> |
|----|---|----------------------|
| 1. | $64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \text{ or } 2^6$ | <u>2</u> |
| 2. | $378 = 2 \times 3 \times 3 \times 3 \times 7 \text{ or } 2 \times 3^3 \times 7$ | <u>2, 3, 7</u> |
| 3. | $279 = 3 \times 3 \times 31 \text{ or } 3^2 \times 31$ | <u>3, 31</u> |
| 4. | $84 = 2 \times 2 \times 3 \times 7 \text{ or } 2^2 \times 3 \times 7$ | <u>2, 3, 7</u> |
| 5. | $72 = 2 \times 2 \times 2 \times 3 \times 3 \text{ or } 2^3 \times 3^2$ | <u>2, 3</u> |

Determine if the following numbers are prime or composite.

| | <u>Prime</u> | <u>Composite</u> |
|--------|--------------|------------------|
| 1. 97 | <u>✓</u> | _____ |
| 2. 231 | _____ | <u>✓</u> |
| 3. 873 | _____ | <u>✓</u> |
| 4. 457 | <u>✓</u> | _____ |
| 5. 971 | <u>✓</u> | _____ |

LEVEL G

Name _____

NUMERATION

Date _____

Skill 8

1. Circle each set of numerals that could appear in a base 2 system.

6, (10), (1), 30, (111), (1001)

2. Name the (a) place value, (b) face value, and (c) the total value of the digit 6 in each of the following numerals.

416 (a) ones
eight (b) 6
(c) 6

1067 (a) eights
eight (b) 6
(c) 60 eight

3. Write the numerals that you would use in base twelve.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, T, E

Level G

Name _____

NUMERATION

Date _____

Skill 9

1. Convert each of the following numerals to the designated base.

303 78
five ten

311 2221
ten five

267 413
ten eight

267 183
eight ten

1001 9
two ten

2. Compare the place value of 12,347 in base ten and base eight.

| 12347 ten | | | base 10 1 ten 3 eight | base 10 2 ten 0 eight | base 10 3 ten 0 eight | base 10 4 ten 7 eight | base 10 7 ten 3 eight |
|--------------|--|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | | | | | | | |

LEVEL G

Name _____

ADDITION AND SUBTRACTION

Date _____

Skill 1

Solve and label.

1. At the school cake sale Jack collected \$9.50, Phil collected \$12.75, Glen collected \$17.25, and Harry collected \$8.00. How much money did the boys collect all together?

\$ 47.50

2. There was \$6.75 in the class treasury when Steve was elected treasurer. Steve received \$4.85 dues, and paid out \$2.49 for aquarium equipment, and \$1.32 for stationery and stamps. How much money remained in the treasury?

\$ 7.79

3. In a Chinese checkers game, Jim scored 25, 35, and 15 points. Betty scored 10, 14, and 23. Who won the game and by how much?

Jim by 28 points

4. One orange grove contained 328 trees, another 589, another 232, and another 153 trees. How many trees were in the four groves?

1302 trees

5. An orange tree produced 10,107 oranges and another tree 1,754 oranges. How many more oranges were produced by the first tree than by the second tree?

2,353 oranges

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 1, 3, 4

1. Round the factors to the hundreds place and estimate the product. Work out the problems and compare your answer with the estimate.

$$\begin{array}{r} 867 \text{ Rounded number } \underline{900} \\ \times 780 \text{ Rounded number } \underline{800} \\ \hline \end{array}$$

$$\begin{array}{r} 676,260 \\ \hline \text{answer} \end{array}$$

$$\begin{array}{r} 720,000 \\ \hline \text{Estimated answer} \end{array}$$

2. $\begin{array}{r} 549 \text{ Rounded number } \underline{500} \\ \times 704 \text{ Rounded number } \underline{700} \\ \hline \end{array}$

$$\begin{array}{r} 386,496 \\ \hline \text{answer} \end{array}$$

$$\begin{array}{r} 350,000 \\ \hline \text{Estimated answer} \end{array}$$

Round the divisor to hundreds, dividend to thousands, estimate the quotient, then work the problem.

3. $\begin{array}{r} 89 \text{ r. } 615 \\ 704 \overline{)63271} \end{array}$

$$\begin{array}{r} 90 \\ 700 \overline{)63000} \end{array}$$

4. $\begin{array}{r} 201 \text{ r. } 131 \\ 639 \overline{)128570} \end{array}$

$$\begin{array}{r} 200 \\ 600 \overline{)124000} \end{array}$$

5. $\begin{array}{r} 97 \text{ r. } 223 \\ 387 \overline{)37762} \end{array}$

$$\begin{array}{r} 90 \\ 400 \overline{)38000} \end{array}$$

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 2

Complete the number sentences.

1. $19^2 = 361$, so $\sqrt{361} = \underline{19}$

2. $85^2 = 7225$, so $\sqrt{7225} = \underline{85}$

Name the square roots.

3. $\sqrt{121} = \underline{11}$

4. $\sqrt{196} = \underline{14}$

5. $\sqrt{676} = \underline{26}$

LEVEL G

Name _____

MULTIPLICATION AND DIVISION

Date _____

Skill 5

Solve and label.

1. Mr. Maxwell sold 2957 bushels of corn at \$.95 a bushel. How much did he receive for the corn?

\$ 2809.15

2. Mr. Maxwell raised the corn on 60 acres of land. What was the average yield per acre?

49 $\frac{17}{60}$

3. The P.T.A. sold school pictures at \$1.50 per package. They sold 619 packages. The profit from this sale was \$123.80. How much profit did they make on each package?

\$.20

4. If the Bennett Causeway toll booth collects approximately \$19.35 an hour, how much will it collect in a week?

\$ 3250.80

5. Les and Tom helped to deliver 329 baskets of fruit. Each basket weighed 107 lbs. What was the total weight of the 329 baskets that Les and Tom delivered?

35203 lb.

LEVEL C

Name _____

FRACTIONS

Date _____

Skill 1

Using the distributive property find the sums or differences. State the answer in lowest terms.

$$1. \quad 2/3 + 3/4 = \underline{8/12} + \underline{9/12} = (\underline{8} + \underline{9}) \times \underline{1/12} = \underline{17/12}$$

$$2. \quad 5/6 - 2/3 = \underline{5/6} - \underline{4/6} = (\underline{5} - \underline{4}) \times \underline{1/6} = \underline{1/6}$$

$$3. \quad 3/7 + 1/2 = \underline{6/14} + \underline{7/14} = (\underline{6} + \underline{7}) \times \underline{1/14} = \underline{13/14}$$

$$4. \quad 6/8 - 2/4 = \underline{6/8} - \underline{4/8} = (\underline{6} - \underline{4}) \times \underline{1/8} = \underline{1/4}$$

$$5. \quad 3/5 + 2/10 = \underline{6/10} + \underline{2/10} = (\underline{6} + \underline{2}) \times \underline{1/10} = \underline{4/5}$$

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 2

Solve the following problems. Show the answer in simplest form.

$$1. \quad 6 \frac{2}{3} + 1 \frac{1}{4} + 1 \frac{1}{2} = \underline{9 \frac{5}{12}}$$

$$2. \quad 3 \frac{2}{11} + 3 \frac{1}{22} = \underline{6 \frac{5}{22}}$$

$$3. \quad 4 \frac{3}{8} - 2 \frac{1}{16} = \underline{2 \frac{5}{16}}$$

$$4. \quad 9 \frac{3}{4} - 2 \frac{1}{3} = \underline{7 \frac{5}{12}}$$

$$5. \quad 6 \frac{1}{4} - 3 \frac{1}{2} + 2 \frac{1}{8} = \underline{4 \frac{7}{8}}$$

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 3, 4

Solve the following equations.

$$1. (9 \times 8) \div 8 = 9 \times (8 \div 8) \\ = 9 \times \underline{1} = \underline{9}$$

$$2. 1/5 \times 35 = 35 \div \underline{5} = \underline{7}$$

3. Dividing by $1/7$ is the same as multiplying by 7.

4. Dividing by 4 is the same as multiplying by its reciprocal $1/4$.

5. The product of $1/9$ and 9 is 1.

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 5

Remove common factors.

$$1. 1/8 \times 32/9 = \underline{\frac{4}{9}}$$

$$2. 14/15 \times 4/42 = \underline{\frac{4}{45}}$$

$$3. 10 \frac{1}{2} \times 2/55 = \underline{\frac{21}{55}}$$

$$4. 7/8 \times 12/14 = \underline{\frac{3}{4}}$$

$$5. 1 \frac{1}{5} \times 2 \frac{3}{20} = \underline{2 \frac{29}{50}}$$

LEVEL 3

Name _____

FRACTIONS

Date _____

Skill 6

Divide. Show estimated answer, then correct answer. Always reduce to the lowest terms.

1. $7/6 \div 4/9 =$ 2 estimate $2\frac{5}{8}$ answer

2. $13/4 \div 7/9 =$ 3 estimate $3\frac{23}{28}$ answer

3. $6/8 \div 5/7 =$ 1 estimate $1\frac{1}{20}$ answer

4. $2\frac{3}{4} \div 1\frac{6}{7} =$ $1\frac{1}{2}$ estimate $1\frac{25}{52}$ answer

5. $\frac{1}{2} \div \frac{5}{6} =$ 1 estimate $\frac{3}{5}$ answer

LEVEL G

Name _____

FRACTIONS

Date _____

Skill 7

Solve and label.

1. The sixth grade girls bought $1\frac{1}{2}$ yards of yellow material and $\frac{3}{4}$ yards of red material to decorate the bulletin board. They needed $3\frac{1}{2}$ yards to do the job. Would the girls need to buy more material? If so, how much more?

1. yes, $1\frac{1}{4}$ yd.

2. Doug caught a fish that weighed $3\frac{3}{4}$ pounds and Tommy caught a fish that weighed $2\frac{1}{8}$ pounds. What was the difference in weight between the two fish? How much did the catch weigh all together?

2. $1\frac{5}{8}$ lbs. $5\frac{1}{8}$ lb.

3. On a three day camping trip the boys walked $2\frac{1}{3}$ miles the first day, 2 miles the second day, and $3\frac{2}{3}$ miles the last day. What was the average mileage per day?

3. $2\frac{2}{3}$ miles

4. Ed uses $1\frac{1}{3}$ yards of string for each kite he makes. If he makes five kites, how many yards of string would he need? If he had twelve yards of string, how many kites could he make?

4. $6\frac{2}{3}$ yd. 9 kites

5. The sixth grade boys played $\frac{5}{6}$ of an hour on the playground. They spent $6\frac{3}{5}$ of the time throwing basketball goals. For how long did they throw goals?

5. 30 min.

LEVEL G

Name _____

DECIMALS

Date _____

Skill 1, 2

Finish labeling the columns of this place value chart using powers of ten. Use fraction form in place of negative exponents. Then complete the chart.

| | 10^9 | 10^8 | 10^7 | 10^6 | 10^5 | 10^4 | 10^3 | 10^2 | 10^1 | 10^0 | $\frac{1}{10^1}$ | $\frac{1}{10^2}$ | $\frac{1}{10^3}$ | |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------|------------------|------------------|--|
| 3,648,231 | | | | 3 | 6 | 4 | 8 | 2 | 3 | 1 | | | | |
| 40.274 | | | | | | | | | 4 | 0 | 2 | 7 | 4 | |
| 3,427.6 | | | | | | | 3 | 4 | 2 | 7 | 6 | | | |
| 12.578 | | | | | | | | | 1 | 2 | 5 | 7 | 8 | |
| 97,321.01 | | | | | | | 9 | 7 | 3 | 2 | 1 | 0 | 1 | |
| 3,876,201,354 | 3 | 8 | 7 | 6 | 2 | 0 | 1 | 3 | 5 | 4 | | | | |
| 36,472.41 | | | | | | | 8 | 6 | 4 | 7 | 2 | 4 | 1 | |

LEVEL G

Name _____

DECIMALS

Date _____

Skill 3

Write the decimal numerals equivalent to the given fractions.

1. $4/15 = .26\bar{6}$

2. $7/11 = .63\bar{63}$

3. $25/4 = 6.25$

4. $9/2 = 4.5$

Write the fraction equivalent to the given decimal numerals.

5. $.86 = \frac{43}{50}$

6. $.97 = \frac{97}{100}$

7. $1.25 = \frac{5}{4}$ or $1\frac{1}{4}$

8. $.025 = \frac{1}{40}$

9. $6.66\frac{2}{3} = \frac{20}{3}$ or $6\frac{2}{3}$

10. $.75 = \frac{3}{4}$

LEVEL G

Name _____

DECIMALS

Date _____

Skill 4

Solve these equations.

1. $.65 + .86 = 1.51$

2. $8.46 - 4.5 = 3.96$

3. $4.37 + 20.1 + .38 + 4.8 + .26 = 35.91$

4. $57.2 - 2.08 = 55.12$

5. $62.3 + 31.9 - 14.7 = 79.5$

LEVEL G

Name _____

DECIMALS

Date _____

Skill 5, 6

Solve these equations.

1. $416.1 \times 18 = \underline{7,449.8}$

2. $3024.03 \times 53 = \underline{160,273.59}$

3. $42.312 \times 38 = \underline{160.778}$

4. $73.17 \times 1.6 = \underline{117.072}$

5. $96.7 \times .8 = \underline{77.36}$

LEVEL G

Name _____

DECIMALS

Date _____

Skill 7

1.
$$\begin{array}{r} 406. \\ .6 \overline{)243.6} \end{array}$$

2.
$$\begin{array}{r} 13.5 \\ .5 \overline{)6.75} \end{array}$$

3.
$$\begin{array}{r} .936 \\ 7 \overline{)6.552} \end{array}$$

4.
$$\begin{array}{r} .0832 \\ 5 \overline{).4160} \end{array}$$

5.
$$\begin{array}{r} 213. \\ 1.23 \overline{)261.99} \end{array}$$

LEVEL G

Name _____

DECIMALS

Date _____

Skill 8, 9, 10

Name the decimals as per cents.

1. .75 75%

2. .08 8%

Name the per cents as decimal fractions.

3. 9% .09

4. 100% 1.00

Convert the fractions to per cent and the per cent to fractions.

5. $13/20 =$ 65%

6. 4% = $\frac{1}{25}$

Name the sums or differences.

7. $32\% + 67\% =$ 99%

8. $57\% - 48\% =$ 9%

Solve.

9. 2% of 50 = 1

10. 86% of 53 = 45.58

LEVEL C

Name _____

DECIMALS

Date _____

Skill 11

Solve and label.

1. Mr. Browning works for a corporation that gave a 6% raise this year. If his salary last year was \$7,200, what is his gross monthly pay this year?

1. \$ 636.00

2. Muriel rode down the Missouri Valley Trail. It is 10.7 miles to High Point, 43.16 miles to Evergreen, 79.016 miles to Terrace, and 5.4 miles on to the river. How long is the Missouri Valley Trail?

2. 138.276 mi.

3. Jerry caught 17 fish. The average weight was 1.37 pounds. What was the total weight of the fish? If he sold his catch at 39¢ per pound, how much did he make? Round your answer to the nearest hundredth.

3. 23.29 lb \$ 9.08

4. Mr. Pike bought a shirt which had been marked down 25%. It originally sold for \$8.96. How much did he pay for the shirt?

4. \$ 6.72

5. What is the volume of a square box which has a measurement of 3.4 inches on a side?

5. 54.519 cu in

LEVEL G

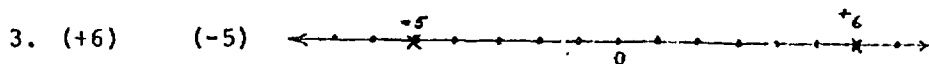
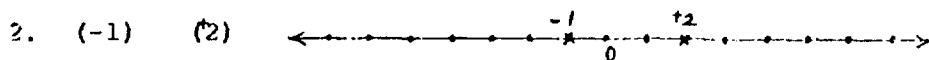
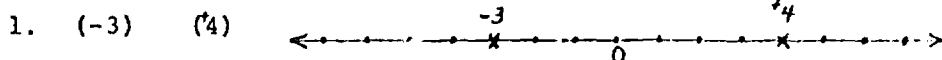
Name _____

INTEGERS

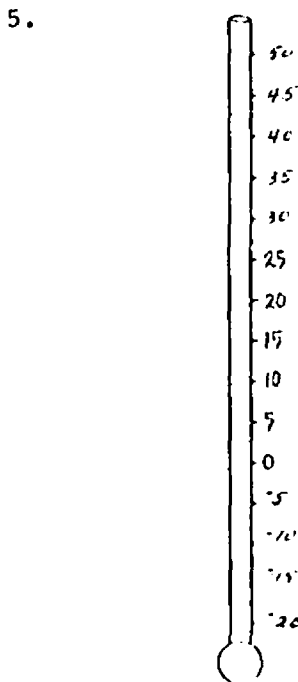
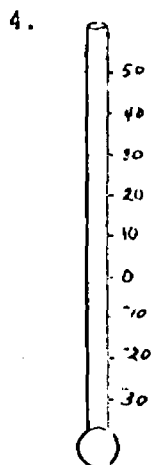
Date _____

Skill 1

Locate the following points on the number lines:



Complete the following thermometers:



LEVEL 3

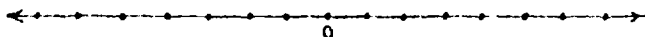
INTEGERS

Skill 2

Name _____

Date _____

Add.



1. $(-4) + (-2) = \underline{-6}$

2. $(-3) + (-1) = \underline{-4}$

3. $(-1) + (-5) = \underline{-6}$

4. $-5 + (-15) = \underline{-20}$

5. $-15 + (-4) = \underline{-19}$

LEVEL 3

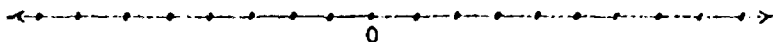
INTEGERS

Skill 3

Name _____

Date _____

Add.



1. $+3 + (-2) = \underline{-1}$

2. $+1 + (-4) = \underline{-3}$

3. $(-3) + (+2) = \underline{-1}$

4. $+30 + (-20) = \underline{+10}$

5. $-53 + (+60) = \underline{+7}$

LEVEL G

Name _____

INTEGERS

Date _____

Skill 4

Subtract.

1. $+4 - (+1) = +3$

2. $+4 - (+7) = -3$

3. $(-5) - (-1) = -4$

4. $-9 - (-2) = -7$

5. $+1 - (+2) = -1$

LEVEL G

Name _____

INTEGERS

Date _____

Skill 5

Subtract.

1. $+1 - (-4) = +5$

2. $+1 - (-1) = +2$

3. $-5 - (+1) = -6$

4. $-2 - (+3) = -5$

5. $-5 - (+3) = -8$

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 1

Relate the following metric units to each other by powers of 10.

1. 10^3 meters = 1 kilometer

2. 2 cubic centimeters = 2000 cubic millimeters

3. 30 grams = 3 decagrams

4. 70 decaliters = 700 liters

5. 3 square centimeters = 300 square millimeters

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 2, 3

Solve and label.

1. Use an equation to find the perimeter of the square.



7 in.

$$P = 4 \times 7 = 28 \text{ in.}$$

2. Use an equation to find the perimeter of the rectangle.

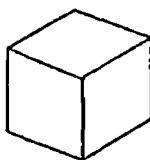


3.5'

6.5'

$$P = 2 \times (3.5' + 6.5') = 20'$$

3. Use an equation to find the surface area of the cube.



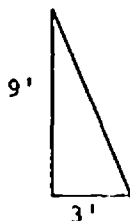
3 cm.

$$S = 6 \times (3 \text{ cm.} \times 3 \text{ cm.})$$

4. How many cubic feet in a rectangular box 3 by 9 by 12 feet?

$$324 \text{ cu. ft.}$$

5. Find the area of the right triangle.



$$13 \frac{1}{2} \text{ ft.}$$

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 4

Write the metric equivalents for the following weights:

1 gram = 0.035 avoir du pois ounce

1 avoir du pois ounce = 28.350 grams

1 kilogram = 2.2 avoir du pois pounds

1 kilogram = 1000 grams

1. 516 kg. = 516,000 grams

2. $8\frac{1}{2}$ oz. = 240.975 grams

3. 6 oz. = .1701 kilograms

4. 16 grams = .56 avoir du pois ounces

5. 5 kilograms = 176.4 ounces

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 5

Solve these problems and label.

1. Which is the better buy, a kilogram of potatoes for 53¢ or 2 pounds of potatoes for 53¢?

1 Kg.

2. Alice weighs $93\frac{1}{2}$ pounds. Approximately how many kilograms does she weigh?

42.5 Kg.

3. A well-known brand of tomato soup has the inscription "10½ oz.; 2.98 grams" on the label. From this information, determine about how many grams are equivalent to 1 ounce.

.28⁺ grams

4. Anne bought 1,589 grams of hamburger meat. How many pounds was this?

.349⁺ lb.

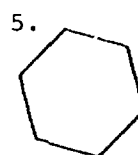
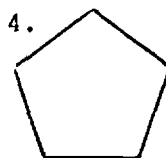
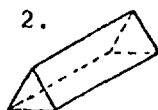
5. A cat weighs 14 pounds. How many grams? 6,350⁺ grams

How many kilograms? 6.35⁺ Kg.

LEVEL GGEOMETRYSkill 6

Name _____

Date _____



Study the surfaces above, then complete the table.

| Shape | Number of faces | Number of vertices | Number of edges |
|----------------------|--------------------|-----------------------|--------------------|
| 1. Cube | 6 | 8 | 12 |
| 2. Triangular prism | 5 | 6 | 9 |
| 3. Rectangular prism | 6 | 8 | 12 |
| 4. Pentagon | 1 | 5 | 5 |
| 5. Hexagon | 1 | 6 | 6 |

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 7

The following list concerns the properties of planes.

Check the true statements.

1. A plane is the interior of a closed curve. _____
2. A plane extends infinitely in all directions. _____ ✓
3. A plane is a flat surface. _____ ✓
4. Three points in a line determine a plane. _____
5. Planes are particular sets of points. _____ ✓

LEVEL G

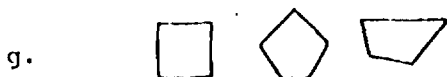
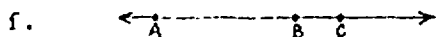
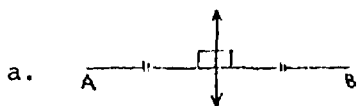
GEOMETRY

Skill 8

Name _____

Date _____

Match the following figures with the best answer. Use each letter only once.



f. 1. Line segments

e. 2. Ellipse

d. 3. Congruent triangles

g. 4. Polygons

h. 5. Regular hexagon

j. 6. Angles

b. 7. Triangles with bisected angles

a. 8. Perpendicular bisector

c. 9. Simple curve

i. 10. Linear pairs

LEVEL G

Name _____

GEOMETRY

Date _____

Skill 9

Solve and label.

1. One gallon of paint will cover 180 sq. ft. How many gallons of paint will it take to paint the walls of a room which is 10 ft. wide by 14 ft. long by 8 ft. high?

$2\frac{6}{45}$ gal.

2. John wants to build a square box which will hold 1000 centimeter cubes. What size box will he need to build?

$\frac{10\text{cm.} \times 10\text{cm.} \times 10\text{cm.}}{1\text{dm.} \times 1\text{dm.} \times 1\text{dm.}}$
or

3. A playground has a length of 300 feet and a width of 250 feet. How many yards of fence will it take to fence the playground?

$366\frac{2}{3}$ yds.

4. A science experiment called for 8 fluid drams of alcohol. John bought one pint. How many times could this experiment be tried from the pint of alcohol? (8 fl. drams = 1 oz.)

16 times

5. If the ratio of the telephone pole to its shadow is 6:5, how high would the telephone pole be if it cast a 30' shadow?

36 ft.

LEVEL G

Name _____

TIME

Date _____

Skill 1

Name the sums or differences in the following problems.

$$\begin{array}{r} 1. \quad \begin{array}{r} 1 \text{ yr.} \\ + 4 \text{ yr.} \end{array} \quad \begin{array}{r} 10 \text{ mo.} \\ 6 \text{ mo.} \end{array} \quad \begin{array}{r} 2 \text{ wk.} \\ 1 \text{ wk.} \end{array} \\ \hline 6 \text{ yr.} \quad 4 \text{ mo.} \quad 3 \text{ wk.} \end{array}$$

$$\begin{array}{r} 2. \quad \begin{array}{r} 4 \text{ hr.} \\ - 3 \text{ hr.} \end{array} \quad \begin{array}{r} 10 \text{ min.} \\ 40 \text{ min.} \end{array} \\ \hline 30 \text{ min.} \end{array}$$

$$\begin{array}{r} 3. \quad \begin{array}{r} 4 \text{ min.} \\ 5 \text{ min.} \\ + 9 \text{ min.} \end{array} \quad \begin{array}{r} 20 \text{ sec.} \\ 30 \text{ sec.} \\ 40 \text{ sec.} \end{array} \\ \hline 19 \text{ min.} \quad 30 \text{ sec.} \end{array}$$

$$\begin{array}{r} 4. \quad \begin{array}{r} 12 \text{ yr.} \\ + 24 \text{ yr.} \end{array} \quad \begin{array}{r} 8 \text{ mo.} \\ 5 \text{ mo.} \end{array} \\ \hline 37 \text{ yr.} \quad 1 \text{ mo.} \end{array}$$

5. Connie's birth date is June 11, 1958. How old was Connie at the time of the achievement test given April 15, 1970?

$\frac{11}{\text{years}}$ $\frac{10}{\text{months}}$ $\frac{4}{\text{days}}$

LEVEL G

Name _____

SPECIAL TOPICS

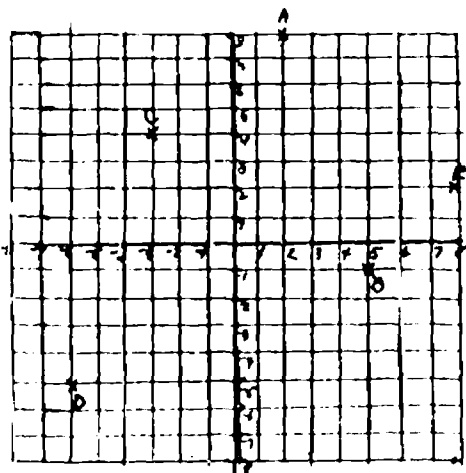
Date _____

Skill 1

Each student will need a sheet of $\frac{1}{4}$ inch graph paper.

Find and label the coordinate points on the coordinate plane.

| | | | |
|----|-----|----|---------|
| A. | 2, | 8 | (2,8) |
| B. | 5, | -1 | (5,-1) |
| C. | -3, | 4 | (-3,4) |
| D. | -6, | -5 | (-6,-5) |
| E. | 8, | 2 | (8,2) |



LEVEL C

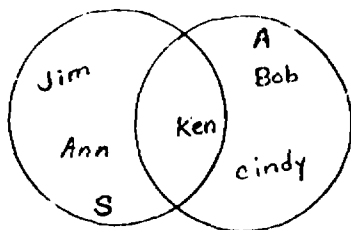
Name _____

SPECIAL TOPICS

Date _____

Skill 2

1. Draw a Venn diagram to show the union of $S = \{\text{Jim, Ann, Ken}\}$ and $A = \{\text{Bob, Ken, Cindy}\}$.



2. True or False.

In the above diagram $S \cap A = \text{Ken}$ True

3. Write the equation for the following, showing intersection of sets.

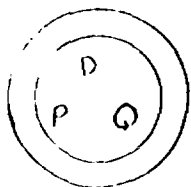
$A = \{\text{Sept., Oct., Nov.}\}$

$R = \{\text{Oct., Nov., Dec., Jan.}\}$

$A \cap R = \text{Oct., Nov.}$

4. Draw a Venn diagram for the following:

$$\{P, D, Q\} \cup \{P, D, Q\} = \{P, D, Q\}$$



5. True or False.

The intersection set of disjoint sets is the empty set.

True

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 3

There are three marbles in a box. One is red, one is white, and one is blue. Below is a model listing all the possible orders in which they can be removed from the box.

RWB
RBW

BRW
BWR

WBR
WRB

Use this model to answer the following questions.

What is the probability that:

1. the first marble will be red? $\frac{2}{6}$ or $\frac{1}{3}$
2. the first marble will be red or white but not blue? $\frac{4}{6}$ or $\frac{2}{3}$
3. if the first marble is blue, the second marble will be white? $\frac{1}{6}$
4. if the first marble is white, the second marble will also be white? $\frac{1}{6}$ or $\frac{1}{6}$
5. the first marble will be blue, the second red and the third white? $\frac{1}{6}$

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 4

Check the true statements, leave the false statements blank.

1. All squares are rectangles. _____ ✓
2. No one digit numeral is a fraction. _____
3. All numbers are prime or composite. _____
4. If it is a number, then it is not a numeral. _____
5. If it is a quadrilateral, then it must be a polygon or a triangle. _____
6. If it is a positive integer between 1 and 10, then it must have its opposite negative integer between -1 and -10. _____ ✓
7. If an equation is a math sentence with an = sign between two expressions which name the same number, then $6 + x = 105$ is not an equation. _____

LEVEL G

Name _____

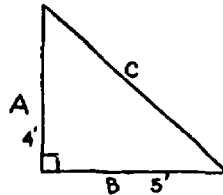
SPECIAL TOPICS

Date _____

Skill 5

Write a closed number sentence for the following problems.

1. Length of side A.



$$C^2 = 4^2 + 5^2 \doteq 6.5$$

2. Volume of a box 9 inches by 6 inches by 4 inches.

$$V = 9'' \times 6'' \times 4'' = 216 \text{ cubic inches}$$

3. Circumference of a circle with a radius of 2 feet.

$$C = 3.14 \times 4 = 12.56'$$

4. The volume of a cylinder with a diameter of 4 inches and a height of 8 inches. Use $\pi = 3.14$

$$V = 3.14 \times 4^2 \times 8 = 201.68 \text{ cubic inches}$$

5. A car travels 480 miles in 8 hours. What was the average speed per hour?

$$S = \frac{480}{8} = 60 \text{ m.p.h.}$$

LEVEL G

Name _____

SPECIAL TOPICS

Date _____

Skill 6

Each student will need a sheet of paper.
Draw a bar graph for each set of data.

| | | | | | | |
|----|-------------------|-------|-------|----------|-----------|----------|
| 1. | Liquid | Water | Oil | Gasoline | Sea Water | Kerosene |
| | Pounds per gallon | 8.33 | 7.497 | 5.664 | 8.58 | 6.664 |

| | | | | | | |
|----|-----------------------|--------|------------|--------|--------|-------|
| 2. | Material | Glass | Balsa Wood | Gold | Iron | Lead |
| | Pounds per cubic foot | 152.24 | 8.11 | 1203.4 | 486.72 | 705.1 |

3.-4. Name the averages for the data in exercises 1 and 2 rounded to the nearest tenth.

3. 7.3

4. 573.1

5. Estimate the number of gallons of water needed to weigh about the same as a cubic foot of gold.

5. 144 gal.

MATHEMATICS CONTINUUM

LEVEL H

BOOK I

The objectives for Level H have been written for the sixth year students who need a more extensive program than is provided in Level G. At this time, no related resources have been keyed in, nor have any tests been written.

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

Metric and Non-Metric Geometry have been combined under the heading Geometry.

Money has not been keyed because it is interspersed with other topics.

The conversion tables are listed in the Strategy Manual.

LEVEL: H

NUMERATION



- Identifies a set as finite, infinite or empty (null). Names the elements of a set from a given word description and uses set notation.

$A = \{ \}$, $A = \emptyset$, $a \in A$, $a \notin A$

- Names all subsets of a given finite set, both proper and improper, and uses subset symbols.

$A \subset A$, $\emptyset \subset A$, $a \notin A$

- Discriminates between equal, nonequal and equivalent sets.

$A = B$, $A \neq C$

- Performs operations on sets using the commutative and associative properties. Uses set notation or Venn diagrams to describe or picture these properties.

$A \cap B = 1, 2, 3$

$B \cap A = 1, 2, 3$

$A \cap C = \emptyset$

- Compares other number systems (primitive and modern) with the decimal system. Identifies base and place value, or lack thereof, for these systems. Uses tables.

Example

Numeration

Choose the word: finite, infinite or empty, which describes each of the following sets.

$A = \{a, b, c, \dots\}$ infinite

$B = \{ \}$ empty or null

$C = \{a, c, d, \}$ finite

Place the correct symbol in the blanks. $a \in A \cup C$ but set A is \neq C. Set B \subset $A \cup C$.

Name all the subsets of C.

$C = \{a, c, b\}$

$\{ \}, \{a\}, \{b\}, \{c\}, \{a, b\}, \{a, c\}, \{b, c\}, \{a, b, c\}$

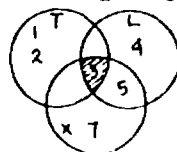
Is the following statement true or false? Two sets with the same number of elements are always equivalent but not always equal. TRUE

Draw a Venn diagram to illustrate the intersection of:

$T = 1, 2, 3$

$L = 3, 4, 5$

$X = 3, 5, 7$



Show the union using the associative property.

$(T \cup L) \cup X = T \cup (L \cup X)$

Use Egyptian hieroglyphics to rewrite 32 nnnn.

ten

Compare the following table for 32

ten.

face value

place value

decimal 3

3

ten

2

2

ones

Egyptian 0

10

10

1

1

no

Textual ResourcesRelated ResourcesNotesNumeration

1. HM Book 1, pp. 5-10,
16
2. HM Book 1, pp. 11-14
3. HM Book 1, pp. 14-19
4. HM Book 1, pp. 19-27
5. HM Book 1, pp. 104-129

LEVEL H

Numeration

6. Recognizes and applies the terms twin primes, relatively prime, natural numbers, whole numbers and perfect numbers in problem situations.
7. Discriminates between the terms prime factor and complete factorization. Gives the unique factorization property of natural numbers.

Example

Numeration

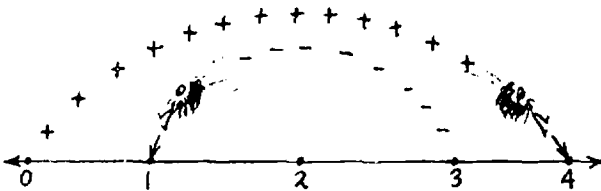
Match the following terms with the correct example.

- a. twin primes b 1,2,3
- b. natural numbers a 11,13
- c. whole numbers d 7,30
- d. relatively prime c 0,1,2,3

Show the prime factors and the complete factorization of the numeral 27.

Prime factor 3
Prime factorization 3^3

ADDITION AND SUBTRACTION



1. Names and identifies the closure, commutative, associative, additive, comparison and difference - sum, properties, that exist for addition and subtraction in the set of whole numbers. Uses these properties in solving problems.
2. Uses variables to represent an unspecified element of a given set. Replaces the variables with a numeral for one of its values in order to make a true statement.
3. Adds or subtracts numbers written in exponential form with the same base raised to the same negative or positive power.

Addition and Subtraction

State the property shown by each of these examples:
 $150 + (25+75) = (150+25) + 75$

Associative

$$63 + 0 = 63$$

Additive

Identify the true statements.

$$4 + N = N + 4 \quad \underline{\text{I}}$$

$$N + 25 \neq 25 + N \quad \underline{\text{F}}$$

$$N + 5 = 5 + N \quad \underline{\text{I}}$$

Solve the following:

$$4 (7)^3 + 2 (7)^3 = \underline{6(7)^3}$$

$$8 (5)^4 - 4 (5)^4 = \underline{4(5)^4}$$

Textual ResourcesRelated ResourcesNotesNumeration

6. HM Book 1, pp. 16,
221. 237

7. HM Book 1, pp. 231-237

Addition and Subtraction

1. HM Book 1, pp. 34-65,
85

2. HM Book 1, p. 41

3.

LEVEL H

Addition and Subtraction

4. Adds or subtracts 1 and 2 digit numerals in base 2, 3, and 8. States answer either in designated base or in base ten.
5. Solves verbal problems with skills learned to this point.

Example

Addition and Subtraction

Solve.

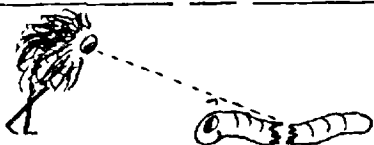
$$\begin{array}{r} 10 \\ \text{three} \end{array} + \begin{array}{r} 121 \\ \text{three} \end{array} = \frac{201}{\text{three}}$$

$$\begin{array}{r} 121 \\ \text{three} \end{array} - \begin{array}{r} 10 \\ \text{three} \end{array} = \frac{111}{\text{three}}$$

Forty students are in a French class, 50 are in a biology class. Twelve of these are in both classes. How many students are in either the French or the biology class?

78 pupils

MULTIPLICATION AND DIVISION



1. Names and identifies the closure, commutative, associative and distributive properties that exist for multiplication and division in the set of whole numbers. Solves problems in multiplication and division using these properties.
2. Multiplies and divides number in exponential form with the same base in both positive and negative powers.

Multiplication and Division

State the property shown by each of these examples.

$$\begin{array}{l} 12 \times 0 = 0 \quad \underline{\text{property of 0}} \\ 7 \times 6 = 42 \quad \underline{\text{closure}} \\ 6 \div 1 = 6 \quad \underline{\text{property of 1}} \end{array}$$

Write the letter of the correct statement. a

The distributive property of multiplication is shown by the example.

- a. $7 \times (5+3) = (5 \times 7) + (7 \times 3)$
- b. $10 \times (4 \times 3) = (10 \times 4) \times 3$
- c. $7 \times 8 = 8 \times 7$

$$\frac{7^3}{6^{-3}} \times \frac{7^4}{6^{-4}} = \frac{7^7}{6^{-7}}$$

Textual ResourcesRelated ResourcesNotesAddition and Subtraction

4.

5. HM Book 1, pp. 39, 48,
49, 55, 56, 60, 149

Multiplication and Division

1. HM Book 1, pp. 71-100,
149-159

2.

LEVEL H

Multiplication and Division

3. Finds cubes of whole numbers and finds cube roots of numbers from simple tables or experimentation.
4. Solves verbal problems with skills learned to this point.

Example

Multiplication and Division

Cube the following:

$$6^3 = \underline{216}$$

Find the cube root of $8 = \underline{2}$

Mr. Harris works as a car salesman. His contract calls for a salary of \$300.00 monthly, plus a commission of \$150.00 for each new car sold and \$50.00 for each used car sold. What will be his total yearly salary if he sells 21 new cars and 17 used cars?

\$7600.00

FRACTIONS



1. Defines a fraction as a rational number (a/b) where $b \neq 0$. Writes whole numbers, mixed fractions and decimals in standard form (a/b) as a member of the set of rational numbers.
2. Demonstrates proficiency in the computational skills of addition, subtraction, multiplication and division in the set of rational numbers.
3. Orders two, three or four rational numbers, including numbers of mixed form.

Express each number as a rational number (a/b) .

$$\begin{aligned} 5 &= \frac{5}{1} \\ 6 \frac{1}{2} &= \frac{13}{2} \\ .33 &= \frac{33}{100} \end{aligned}$$

Solve the following equation.

$$\left(\frac{2}{3} + \frac{1}{2}\right) \div \frac{1}{4} = \underline{4\frac{2}{3}}$$

Order the following.

.37, $\frac{1}{3}$, $1\frac{1}{2}$, $\frac{1}{5}$

$\frac{1}{5}$, $\frac{1}{3}$, .37, $1\frac{1}{2}$

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---|--------------------------|--------------|
| <u>Multiplication and Division</u> | | |
| 3. HM Book 1, p. 113 | | |
| 4. HM Book 1, pp. 75, 80, 34 | | |
| <hr/> | | |
| <u>Fractions</u> | | |
| 1. HM Book 1, pp. 308, 309, 315, 326 | | |
| 2. HM Book 1, pp. 336-357 | | |
| 3. HM Book 1, pp. 359, 364 | | |

LEVEL H

Fractions

4. Uses the basic property of fractions.
5. Solves statement (verbal) problems with emphasis on computational skills in the set of rational numbers.

Example

Fractions

$$\frac{75}{100} = \frac{75-25}{100-25} \quad \text{and} \quad \frac{3 \times 25}{4 \times 25} = \frac{75}{100}$$

Mr. Wills owns $\frac{5}{9}$ of a company, while Mr. Rand owns $\frac{1}{4}$ of the company. After Mr. Wills sells $\frac{3}{5}$ of his share to a third man who then has a smaller share in the company, Mr. Wills or Mr. Rand? Why? Mr. Wills

DECIMALS

2.84



1. Extends whole numbers numeration to decimal numeration in exponential notation. Limit - the ten-millionth place.
2. Applies the algorithms for addition, subtraction, multiplication and division of whole numbers to decimal numerals. Uses estimation for purpose of checking answers.
3. Orders sets of decimals.

Decimals

Write this numeral in expanded form.

$$\begin{aligned} &327.0015796 \\ &\underline{(3 \times 100) + (2 \times 10) + (7 \times 1) + (0 \times \frac{1}{10}) + (0 \times \frac{1}{100}) +} \\ &\underline{(1 \times \frac{1}{1000}) + (5 \times \frac{1}{10,000}) + (7 \times \frac{1}{100,000}) +} \\ &\underline{(9 \times \frac{1}{1,000,000}) + (6 \times \frac{1}{10,000,000})} \end{aligned}$$

Rounds to the nearest whole number, estimate answer, then work problem.

$$\begin{aligned} &15.316 + 9.02 + 102.77 \\ &\underline{15} + \underline{9} + \underline{103} = \underline{127} \\ &\qquad\qquad\qquad \underline{127.106} \end{aligned}$$

Order the following decimals.

.06532, .179621, .003275

.003275, .06532, .179621

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|---------------------------|--------------------------|--------------|
| <u>Fractions</u> | | |
| 4. HM Book 1, pp. 332-336 | | |
| 5. | | |

| <u>Decimals</u> | | |
|---------------------------------------|--|--|
| | | |
| 1. HM Book 1, pp. 373, 374 | | |
| 2. HM Book 1, pp. 379-381, 397-402 | | |
| 3. HM Book 1, pp. 406, 407 | | |

LEVEL H

Decimals

4. Identifies the place value of a common fraction in a mixed decimal.
5. States the decimal approximation for a given number to a given place.
6. Identifies and gives examples of terminating and repeating (non-terminating) decimals. Writes repeating decimals in either of 2 forms.
7. Converts decimal fractions to common fractions in lowest terms to the ten-millionths' place and vice versa.
8. Solves word problems with skills learned to this point.

Example

Decimals

What is the value of the $\frac{3}{4}$ in this number.

$$\begin{array}{r} 0163 \\ \quad 4 \\ \hline \end{array}$$

$\frac{3}{4}$ thousandths

Round the following numbers as indicated.

791.1725 - nearest thousandth

$$\underline{791.173}$$

2.7654 - nearest tenth

$$\underline{2.8}$$

Identify the repeating decimals by rewriting them in proper form.

$$\begin{array}{r} .09 \\ .083 \\ .75 \end{array}$$

.09...
.083

Change the decimal fractions to common fractions and the common fractions to decimals.

$$\begin{array}{r} 3.65 = \frac{365}{100} \\ 5 \frac{1}{12} = \frac{5 \frac{1}{12}}{1} \end{array}$$

If the orbital velocity of the earth is 18.5 miles per second, how far does the earth travel between 11:00 a.m. and 12:30 p.m. of a given day?

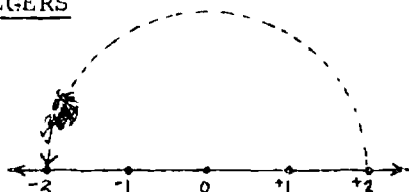
$$\underline{99,900 \text{ miles}}$$

Textual ResourcesRelated ResourcesNotesDecimals

4. HM Book 1, p. 387
5. HM Book 1, pp. 383, 385
6. HM Book 1, pp. 389-393
7. HM Book 1, pp. 386-389
8. HM Book 1, pp. 382, 383, 397, 402

LEVEL H

INTEGERS



1. Orders a set which contains both positive and negative integers.
2. Raises any positive or negative integer to any positive or negative power.
3. States, identifies, and gives examples of the properties of addition, subtraction, multiplication and division in the set of directed integers. Compares this system to the system of whole numbers.
4. Demonstrates proficiency in the computational skills of addition, subtraction, multiplication, division and exponentiation of directed integers.
5. Solves statement (verbal) problems with emphasis on computational skills in the set of directed integers.

Example

Integers

Order this set of integers.

$-3, +3, -5, +5, 0$

$-5, -3, 0, +3, +5$

Work the following.

$$\begin{aligned} (+6)^{-3} &= \frac{1}{216} \\ (-3)^{+3} &= -27 \end{aligned}$$

Indicate = or \neq for each sentence.

$$\begin{aligned} -3 + 4 &= 4 + (-3) \\ 2 - 3 &\neq 3 - 2 \end{aligned}$$

What property of operation(s) exist(s) in the set of integers that does not hold true in the set of whole numbers?

closure of subtraction

Perform the indicated operation.

$$\begin{aligned} -275 + 87 &= -188 \\ -788 - (-15) &= -773 \\ 8 \times (-17) &= -136 \\ 364 \div (-52) &= -7 \end{aligned}$$

Suppose that gasoline is flowing into a tank at the rate of 4 gallons per minute. Compare the amount of gasoline in the tank now with the amount in the tank

(a) 5 minutes in the future;

(b) 3 minutes ago

$$\begin{aligned} a &= 20 \text{ gal. more} \\ b &= 12 \text{ gal. less} \end{aligned}$$

Textual Resources

Integers

1. HM Book 1, p. 501

2.

3. HM Book 1, pp. 504-521

4. HM Book 1, pp. 504-521

5. HM Book 1, pp. 509, 513,
517, 525

Related Resources

Notes

LEVEL H

GEOMETRY



1. States and identifies geometric properties associated with points, lines, planes and space.
2. Identifies coplanar, noncoplanar, collinear, noncollinear points, coplanar, noncoplanar, coincident, noncoincident, concurrent, nonconcurrent lines, coincident, noncoincident, concurrent, nonconcurrent planes.
3. Describes the relationships between defined rays.

Example

Geometry

The following phrases are true for points, lines, planes or space. Classify accordingly.

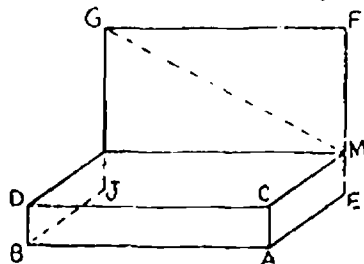
- A. Area is limitless. space
- B. Two intersecting lines determine a plane.
- C. If two planes intersect, then they intersect in a line.
- D. A point has neither color, shape nor size.

Match the words to the correct meaning.

- A. coplanar
- B. coincident
- C. concurrent lines

- B consisting of the same points in space
C contain a given point
A lying in a plane

Choose the letter of the word that shows the relationships between the stated line segments.



- | | | |
|-------------------------------------|----------|-------------|
| \overline{AC} and \overline{CA} | <u>C</u> | A Parallel |
| \overline{BJ} and \overline{MG} | <u>B</u> | B Skew |
| \overline{DB} and \overline{EM} | <u>A</u> | C Collinear |

| <u>Textual Resources</u> | <u>Related Resources</u> | <u>Notes</u> |
|----------------------------|--------------------------|--------------|
| <u>Geometry</u> | | |
| 1. HM Book 1, pp. 167, 197 | | |
| 2. HM Book 1, pp. 197-204 | | |
| 3. HM Book 1, pp. 252-257 | | |

LEVEL H

Geometry

4. Identifies segments, parallel segments, intersecting segments, skew segments, collinear segments, segments neither parallel nor skew.

5. Tests to determine if two points are in opposite half planes of a line.

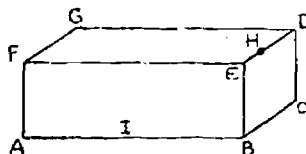
6. States the definition for and identifies an angle, its vertex, side, interior, exterior. Measures and constructs straight, straight, vertical, complementary, congruent, adjacent, and consecutive angles.

7. Classifies triangles in terms of angles as acute, obtuse, right, equiangular or in terms of sides as scalene, isosceles or equilateral.
8. Determines the perimeter and the area of various regions in a plane. Uses formulas to find the volume of familiar solids, prisms and pyramids.

Example

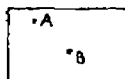
Geometry

Are the following line segments parallel or skew?



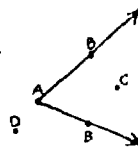
\overline{AB} and \overline{EF} parallel
 \overline{EH} and \overline{FA} skew

Are points A and B in opposite half planes? yes



Label the drawing.

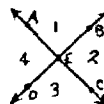
- A. Vertex
 B. Side
 C. Interior
 D. Exterior



Angle A

Using this figure name two pairs of vertical angles ($\angle 1, \angle 3$) ($\angle 2, \angle 4$).
 Name two straight angles ($\angle AEC$) ($\angle DEB$).
 Name congruent angles ($\angle 1, \angle 2, \angle 3, \angle 4$).

Angle B



Name the following triangles:

acute



right



obtuse



Find the area of a trapezoid whose parallel sides are 4" and 8" long, if the altitude is 2".

area 12 sq. in.

Find the volume of a rectangular prism which measures 5" by 4" by 1 1/2".

volume 30 cu. in.

Textual Resources

Geometry

4. HM Book 1, pp. 257-262

5. HM Book 1, pp. 262-267

6. HM Book 1, pp. 268-280
423-428

7. HM Book 1, pp. 413, 427,
428

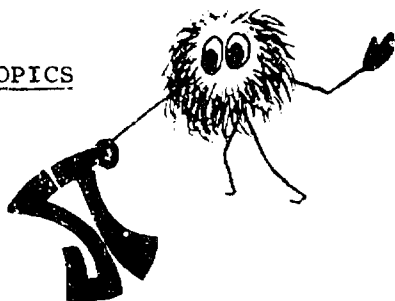
8. HM Book 1, pp. 431, 448,
454-457

Related Resources

Notes

LEVEL H

SPECIAL TOPICS



1. Defines ratio as a comparison of two numbers and expresses it in any or all of three ways; 4 to 5, $\frac{4}{5}$, or 4:5.
2. Defines proportion as a statement that two ratios are equal. Finds the unknown term in a proportion.
3. Solves interest problems using the formula $I = (P \times R) \times T$.
4. Constructs line, circle and bar graphs from given tables of data and extracts data from a given graph.
5. Defines and computes mean, median and mode.

Example

Special Topics

There were 5 boys for every three girls in class. Express the ratio of boys to girls in three ways.

$$\underline{5 \text{ to } 3} \quad \underline{\frac{5}{3}} \quad \underline{5:3}$$

At a picnic the ratio of adults to children was 3 to 5. If there were 21 adults, how many children were there?

$$\frac{3}{5} = \frac{21}{x}$$

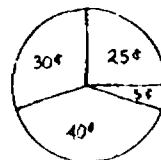
$$3x = 105$$

$$x = 35 \text{ children}$$

The current interest rate on certificates is 7%. How much income per year would Mr. Jones have if he owned \$60,000 worth of certificates?

$$\underline{I = (60,000 \times 7\%) \times 1 = \$4,200}$$

Out of every dollar spent for medical care, 30¢ is spent for hospital service, 40¢ for doctor's services, 25¢ for medicine and 5¢ for medical cost. Show this on a circle graph.



Here is a frequency table of test scores.

| | | | |
|----|------|----|-----|
| 30 | 1 | 25 | 111 |
| 29 | 11 | 20 | 11 |
| 27 | 1111 | | |

What is the:

| | |
|--------|-----------|
| mean | <u>25</u> |
| median | <u>27</u> |
| mode | <u>27</u> |

Textual ResourcesSpecial TopicsRelated ResourcesNotes

1. HM Book 1, pp. 464, 458

2. HM Book 1, pp. 467, 475

3. HM Book 1, pp. 477, 481

4. HM Book 1, pp. 481-492

5. HM Book 1, pp. 491-494

MATHEMATICS CONTINUUM

LEVEL I

BOOK II

The objectives for Level I have been written for the sixth year students who need a more extensive program than is provided in Level H. At this time, no related resources have been keyed in, nor have any tests been written.

Continual evaluation of skills should be made by the teacher. The mastery tests were designed to be given near the end of the year or when success is evident. Teacher tests, teacher judgment, and continuum mastery tests should be used to provide sufficient evidence to check the 70-100% (mastery level) for each skill.

Fractions, Decimals and Integers have been combined under the heading Rational Numbers.

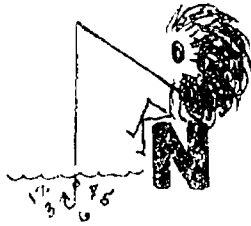
Metric and Non-Metric Geometry have been combined under the heading Geometry.

Money has not been keyed because it is interspersed with other topics.

The conversion tables are listed in the Strategy Manual.

LEVEL I

NUMERATION



1. Answers multiple choice questions to show that the set of whole numbers, directed integers, rational numbers, irrational numbers and natural numbers are subsets of the set of real numbers. Constructs a Venn diagram to show the subset relationships between these sets of numbers.
2. States and identifies the location of the decimal point, relative to standard position and gives the exponent that would be used in writing a given number in scientific notation. Uses both positive and negative exponents.

Example

Numeration

Are the following statements true or false?

- A. Integers are a subset of the rational numbers. T
- B. Every whole number is an integer. T
- C. The set of natural numbers is not a subset of the rational numbers. F

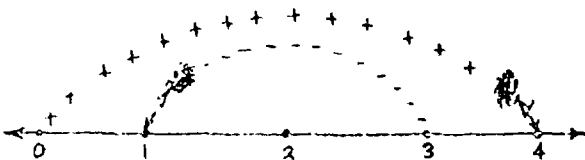
Write in decimal notation.

$$1.27 \times 10^3 \quad \underline{1270}$$

Write in scientific notation.

$$.003 \quad \underline{3 \times 10^{-3}}$$

ADDITION AND SUBTRACTION



1. States and/or uses the properties of addition and subtraction for rational numbers. Compares these properties with the properties for addition and subtraction of whole numbers, the set of natural numbers and the set of integers.

Addition and Subtraction

Give the property of addition which applies to the following.

$$(+1/3 + -1/4) + -1/2 = +1/3 + (-1/4 + 1/2) = \underline{\text{Associative}}$$

$$+5/3 + -4/3 = +1/3 \quad \underline{\text{Closure}}$$

Textual ResourcesRelated ResourcesNotesNumeration

1. HM Book II, pp. 7,
9, 10, 235

2. HM Book II, pp. 161-168

Addition and Subtraction

1. HM Book II, pp. 32-58,
72

LEVEL I

Addition and Subtraction

- Expresses subtraction problems in terms of addition problems.
- Solves open number sentences by using transformations.

Example

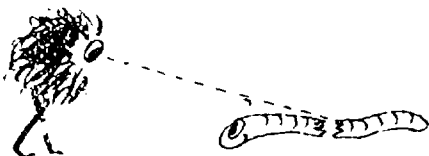
Addition and Subtraction

Write a subtraction fact associated with the sum
 $5 + -2 = 3$. $3 - 5 = -2$

Solve. $2x + 6 = 5 + 5$

$$\begin{array}{r} 2x + 6 = 10 \\ \underline{2x = 10 - 6} \\ \underline{2x = 4} \\ \underline{x = 2} \end{array}$$

MULTIPLICATION AND DIVISION



- Multiplies or divides numbers written in scientific notation.
- Multiplies or divides a positive rational number and a negative rational number and vice versa or two negative rational numbers.
- States and uses the properties of multiplication and division for rational numbers. Compares these properties with the properties for multiplication and division in the set of whole numbers, the set of natural numbers and the set of integers.

Multiplication and Division

Solve and write the answer in both scientific notation and decimal notation.

$$(8 \times 10^5) \div (4 \times 10^3) = \frac{2 \times 10^2}{1} = \underline{200}$$

Solve.

$$\begin{array}{ll} \text{A. } 3/4 \times -1/9 = \underline{-1/12} \\ \text{B. } -2/3 \times -3/4 = \underline{1/2} \\ \text{C. } -5/6 \div 1/3 = \underline{-5/2} \end{array}$$

Write the letter of the correct statement. C

The closure property for multiplication is shown by the example.

$$\begin{array}{ll} \text{A. } -1/6 \times -1/5 = -1/5 \times 1/6 \\ \text{B. } 1 \times -7/8 = -7/8 \\ \text{C. } -2/3 \times 2/3 = -4/9 \end{array}$$

Textual ResourcesRelated ResourcesNotesAddition and Subtraction

2. HM Book II, pp. 51-55

3. HM Book II, pp. 282-288,
296, 297

Multiplication and Division

1. HM Book II, pp. 166-168

2. HM Book II, pp. 63-68,
73-80

3. HM Book II, pp. 68-72

LEVEL I

RATIONAL NUMBERS



1. Orders two, three or four rational numbers including positive and negative numbers of mixed form, decimals, whole numbers, etc.
2. Demonstrates proficiency in the computational skills of addition, subtraction, multiplication, division and exponentiation in the set of rational numbers. Finds equivalent fractions or approximations including decimal representation.
3. Proves that the property of density is true in the set of rational numbers.
4. Finds a terminating or a repeating decimal for a fractional number or vice versa.
5. Solves verbal problems with emphasis on the computational skill related to the set of rational numbers.
6. Finds the absolute value of any rational number.

Example

Rational Numbers

Order the following.

-8, $+3/2$, -13.75

-13.75, -8, $+3/2$

Complete each statement to make it true.

$$-3/29 + -3/37 = -3/37 + \underline{-9/29}$$

$$3/4 \div 9/10 = 3/4 \times \underline{10/9}$$

Name a rational number between the given rational numbers.

.003; .0032 .0031

Find a fraction which names the repeating decimal.

$$.1\bar{6} = \underline{1/6}$$

Change this fraction to a decimal.

$$\frac{1}{3} = \underline{.3\bar{3}}$$

An aquanaut requires 1.8 lbs. of oxygen every twelve hours. How many hours could three aquanauts stay down if their total supply was 27 lbs?

5 (12) hr. periods or 60 hours

Give the absolute value of the following:

- A. -6 +6
B. -12.65 +12.65
C. +3 -3
D. .002 -.002

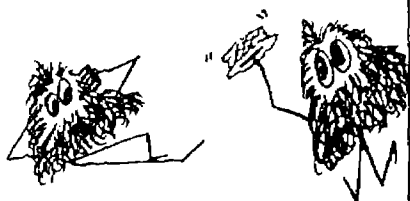
Textual ResourcesRational Numbers

1. HM Book II, pp. 10,
17-19
2. HM Book II, pp. 31-78
3. HM Book II, pp. 242, 243
249
4. HM Book II, pp. 224-233
5. HM Book II, pp. 36, 37,
40, 54, 55, 64, 65
6. HM Book II, pp. 21-24

Related ResourcesNotes

LEVEL I

GEOMETRY



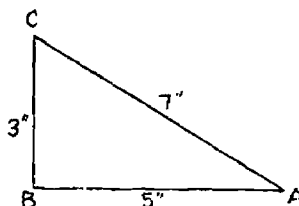
1. Makes rational approximations in finding square roots. Uses decimal numerals.
2. Uses trigonometric ratios in measuring triangles to determine similarity, sin, cosine and tangent.
3. Draws figures to a given scale in order to obtain approximate solutions to problems involving lengths and angles.
4. Classifies and sketches pyramids and prisms according to their bases.
5. Identifies and states the three properties of congruent triangles.

Example

Geometry

Approximate the square root of 7 to the tenths place.

2.6



What is $\sin A$? $\frac{3}{7}$
What is $\cos A$? $\frac{5}{7}$
What is $\tan A$? $\frac{3}{5}$

A plot of land measures 60' by 150'. A scale of 1" to 30' is used. What would the measurements be of the scale drawing? 2" x 5"

Sketch a square pyramid.



Fill in the blanks to make a true statement.

Two triangles are congruent if the 2 angles and the included side of one triangle are congruent to those of another triangle.

Textual ResourcesGeometry

1. HM Book II, pp. 336-347

2. HM Book II, pp. 353-358

3. HM Book II, pp. 359-364

4. HM Book II, pp. 381-403

5. HM Book II, pp. 118-131

Related ResourcesNotes

LEVEL I

Geometry

6. Converts the metric system of measurement in length, area, volume, mass and capacity to the English system and vice versa.
7. Uses the concepts of "precision and accuracy" in problem situations.
8. Uses variety of tools to construct various geometric figures in a plane.
Teacher note: Instructions, page 21 teacher edition.

Example

Geometry

Convert the following measures:

$$3 \text{ ft.} = \underline{91.44} \text{ cm.}$$

$$2 \text{ cu. in.} = \underline{32.78} \text{ cc.}$$

Which would give the most accurate measure; a one inch measure or a one centimeter measure? 1 cm.

What might be the greatest possible error? $\frac{1}{2}$ cm.

Match the tool needed to perform the following operations. Some tools may be used more than once.

- A. Compass
- B. Ruler
- C. Protractor
- D. Straightedge

| | |
|-------------------------|------------|
| Draw chords | <u>B-D</u> |
| Draw circles | <u>A</u> |
| Draw perpendicular line | <u>A-D</u> |
| Measure angles | <u>C</u> |
| Measure chords | <u>B</u> |

Textual ResourcesGeometry

6. HM Book II, pp. 174-196

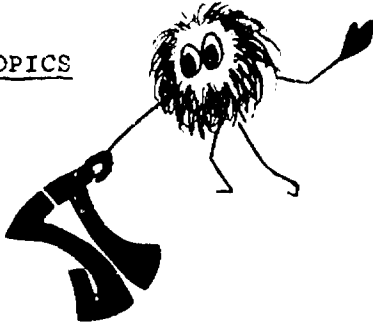
7. HM Book II, pp. 202-216

8. HM Book II, pp. 84-99,
124-127, 130, 131, 389

Related ResourcesNotes

LEVEL I

SPECIAL TOPICS



1. Works with ordered pairs in solving equations.
2. Plots and labels ordered pairs as points on a cartesian coordinate plane and vice versa.
3. Applies mathematical skills to real life situations. Uses ratio and/or proportion whenever possible.
4. States the difference between equal and empirical probabilities, and solves problems related to both.
5. Solves verbal problems using skills learned from the different topics.
Teacher note: Refer to six-step method pp. 316-318.

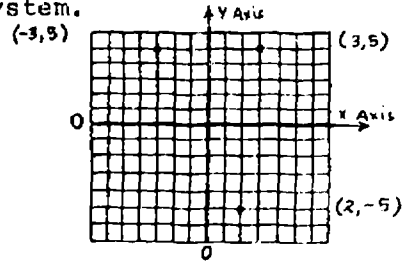
Example

Special Topics

State whether one of the following ordered pairs is a solution to $3x + y = 10$.

(3,1), (6,1), (9,1)

Graph (3,5), (-3,5), (2,-5) using a rectangular coordinate system.



The width of a desk is half the length. If the perimeter is 48", what is the width of the desk? 8 in.

How could you determine the empirical probability of it raining on July 4, 1971, in Brevard County?

Looking up past weather reports for July 4

Keith is 4 years older than Jim. In 6 years, the sum of their ages will be 32. How old is each boy now?

Keith 12 years Jim 8 years

Textual ResourcesSpecial TopicsRelated ResourcesNotes

1. HM Book II, pp. 431-437

2. HM Book II, pp. 438-459

3. HM Book II, pp. 312-327

4. HM Book II, pp. 470-487

5. HM Book II, pp. 315-321